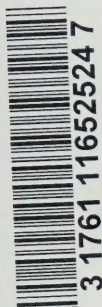


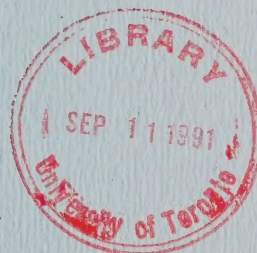
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-H26



ENVIRONMENTAL ASSESSMENT BOARD

VOLUME: 322

DATE: Tuesday, August 20, 1991



BEFORE:

A. KOVEN Chairman

E. MARTEL Member

FOR HEARING UPDATES CALL (COLLECT CALLS ACCEPTED) (416)963-1249

EARR &
ASSOCIATES
REPORTING INC.

(416) 482-3277

2300 Yonge St., Suite 709, Toronto, Canada M4P 1E4

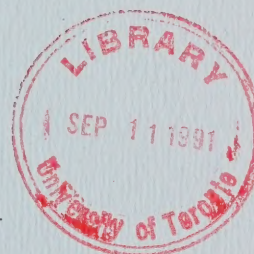
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HEARING ON THE PROPOSAL BY THE MINISTRY OF NATURAL
RESOURCES FOR A CLASS ENVIRONMENTAL ASSESSMENT FOR
TIMBER MANAGEMENT ON CROWN LANDS IN ONTARIO

IN THE MATTER of the Environmental
Assessment Act, R.S.O. 1980, c.140;

- and -

IN THE MATTER of the Class Environmental
Assessment for Timber Management on Crown
Lands in Ontario;

- and -

IN THE MATTER OF a Notice by the
Honourable Jim Bradley, Minister of the
Environment, requiring the Environmental
Assessment Board to hold a hearing with
respect to a Class Environmental
Assessment (No. NR-AA-30) of an
undertaking by the Ministry of Natural
Resources for the activity of timber
management on Crown Lands in Ontario.

Public Hearing held at the Valhalla Inn,
1 Valhalla Inn Road, Ballroom 3, Thunder Bay,
Ontario, on Tuesday, August 20th, 1991,
commencing at 2:00 p.m.

VOLUME 322

BEFORE:

MRS. ANNE KOVEN
MR. ELIE MARTEL

Chairman
Member



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GEORGE NIXON

MR. C. BRUNETTA

NORTHWESTERN ONTARIO
TOURISM ASSOCIATION

I N D E X O F P R O C E E D I N G S

<u>Witness:</u>	<u>Page No.</u>
<u>ULF RUNESSON</u> , Sworn	56859
<u>MALCOLM SQUIRES</u> , Previously sworn	56931
<u>HERMAN VAN DUYN</u> , Sworn	56945
<u>BOB FEDORCHUK</u> , Sworn	56953
<u>MAYOR JACK MASTERS</u> ,	56964
<u>CLEMENT KENT</u> , Sworn	56971
<u>DAVID BAK</u> , Sworn	56992
<u>WARREN MAZURSKI</u> , Sworn	57000
<u>BOB LAVALLEE</u> , Sworn	57006
<u>BRAD MURPHY</u> , Sworn	57018

I N D E X O F E X H I B I T S

<u>Exhibit No.</u>	<u>Description</u>	<u>Page No.</u>
1896	Three-page letter from Mr. Scott (Northwestern Ontario Associated Chambers of Commerce) dated August 6, 1991.	56853
1897	Two-page letter dated August 19, 1991 from E.V. Port, Canadian National Railway.	56854
1898	Package of correspondence from Mr. Grant Tunnicliffe (Marceau Lake Cottagers Association).	56854
1899	Correspondence from Mr. Kevin Hobbs (CPU) dated June 24, 1991.	56855
1900	Two-page letter dated July 25, 1991 from Mr. Charles Parohl.	56855
1901	One-page letter with series of articles copied from July 14th, 1991 Chronicle Journal and letter from Mr. Bill Winterburn.	56856
1902	Series of slides presented by Ulf Runesson on behalf of LU-C.A.R.I.S.	56883
1903	Written presentation by Mayor Jack Masters.	56964
1904	Written presentation by Clement Kent.	56971
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1906	10-page written submission by Mr. Malcolm Squires.	57029
1907	Nine-page written submission by Mr. Herman Van Duyn.	57030

1 ---Upon commencing at 2:00 p.m.

2 MADAM CHAIR: Good afternoon. Please be
3 seated.

4 I suppose we can welcome ourselves back
5 to Thunder Bay today. We're going to have a public
6 session this afternoon and we're going to be hearing
7 from members of the public and their views on timber
8 management planning.

9 Can everyone hear me? Is this microphone
10 on?

11 We have three speakers scheduled for this
12 afternoon, Messrs. Runesson, Higgelke, and Mitchell
13 from Lakehead University who are going to make a
14 presentation to us on - and I see that they have it on
15 the screen already - which has to do with the use of a
16 computer to do forest mapping.

17 We are also going to hear from Mr.
18 Malcolm Squires and also Mr. Herman Vanduyn. That is
19 what we have scheduled for this afternoon. We have
20 other presenters at the evening session which will
21 start at seven o'clock.

22 If there's anyone in the audience this
23 afternoon who wants to talk to the Board, then
24 certainly identify yourself and you might approach Mr.
25 Dan Pascoe who is standing by the wall. Could you

1 raise your hand, Dan, please.

2 MR. PASCOE: (indicating)

3 MADAM CHAIR: And Dan will schedule you
4 either this afternoon or this evening to speak to the
5 Board.

6 We conduct these sessions, for those of
7 you who haven't been here before, in a very informal
8 way. Before you give your evidence we would ask you to
9 approach the Board and have your evidence sworn in and
10 we will all listen attentatively to what you say and we
11 will probably ask questions, both Mr. Martel and I, and
12 the various counsel who are here representing other
13 parties, and I'll introduce them very quickly.

14 Mr. Paul Cassidy, who is with the Ontario
15 Forest Industries Association; Ms. Michelle Swenarchuk
16 who is with Forests for Tomorrow; Ms. Jan Seaborn who
17 represents the Minister of the Environment, and Mr. Vic
18 Freidin who is here on behalf of the Ministry of
19 Natural Resources.

20 Mr. Martel and I are the members of the
21 Environmental Assessment Board who have been conducting
22 the Timber Management Hearing since May of 1988. We
23 spent the better part of two years here in Thunder Bay
24 hearing the evidence of the Ministry of Natural
25 Resources and since we left Thunder Bay we visited many

1 towns in northern Ontario and have heard some evidence
2 in Toronto.

3 The hearing, as it stands now, we expect
4 to complete the evidence in December, a year from now,
5 that's December, 1992, at which point Mr. Martel and I
6 will be delivering our decision whether or not the
7 application by the Ministry of Natural Resources will
8 be approved or denied.

9 Certainly there has been an opportunity
10 for everyone who is interested in this issue to say
11 something about it and indeed hundreds and hundreds of
12 people have done exactly that.

13 If you have any questions to put to the
14 Board about how we do our work or anything about this
15 process, certainly feel free to ask us, and I think
16 I'll close the introductory remarks for now.

17 We're going to begin with the
18 LU-C.A.R.I.S. presentation, but before we do that, we
19 have a few housekeeping matters to take care of.
20 Various things have been coming into the Board since we
21 adjourned in June and various things to be made
22 exhibits and so forth and I think we might as well get
23 that out of the way right now.

24 The first matter has to do with
25 clarification of an exhibits list. Some months ago

1 there was some confusion on our part about whether
2 portions or the entire book by J.P. Kimmins had been
3 made an exhibit and I now have in front of me three
4 exhibit numbers that have been assigned to that book.

5 The first is Exhibit No. 672 which is --
6 Exhibit 672 includes pages 68, 69, 81, and 115-118
7 inclusive of the book entitled Forest Ecology by J.P.
8 Kimmins, University of British Columbia, 1987.

9 Exhibit 1443 is the entire book
10 consisting of 531 pages by Kimmins, and I see here
11 Exhibit 1814, which is a View of Guidelines and Related
12 Discussion Concerning Professional Discretion of
13 Professional Foresters, which was the evidence of Mr.
14 Brown, was withdrawn. I don't know if that was put on
15 the record or not.

16 We also have six separate pieces of
17 correspondence that have come to the Board to be added
18 to the exhibit list.

19 Mr. Freidin?

20 MR. FREIDIN: Madam Chair, can you
21 clarify how that exhibit came to be withdrawn? I
22 wasn't there during that evidence, I was just wondering
23 if there was actual oral evidence about it and whether
24 there's going to be a gap in the record or an inability
25 to understand the transcript if the document has been

1 withdrawn.

2 MADAM CHAIR: I understand that there is
3 something said about that in Volume 306, pages 54369
4 onwards. I'm not sure if that is the part that is to
5 be withdrawn or if it's explained there.

6 MR. FREIDIN: Thank you.

7 MADAM CHAIR: We're beginning with
8 Exhibit 1896, this is correspondence received from the
9 Northwestern Ontario Associated Chambers of Commerce
10 dated August 6th, 1991 and it is a three-page letter
11 signed by Mr. Scott and this was a follow up to the
12 Board's suggestion that that organization look at the
13 proposals for public advisory stakeholder groups that
14 have been made both by the Ministry of Natural
15 Resources and the Ontario Forest Industries
16 Association.

17 ---EXHIBIT NO. 1896: Three-page letter from Mr. Scott
18 (Northwestern Ontario Associated
19 Chambers of Commerce) dated
 August 6, 1991.

20 MADAM CHAIR: Exhibit 1897 is a two-page
21 letter with a covering note to Mr. Pascoe and that is
22 dated August 19, 1991 and it's a submission to the
23 panel by CN, Canadian National Railway and it's signed
24 by Mr. E.V. Port.

25

1 ---EXHIBIT NO. 1897: Two-page letter dated August 19,
 1991 from E.V. Port, Canadian
2 National Railway.

3 MADAM CHAIR: Exhibit 1898 is a package
4 of correspondence from the Marceau Lake Cottagers
5 Association consisting of nine pages. It's dated July
6 the 4th, 1991 and it is from Mr. Grant Tunnicliffe who
7 is president of that association, and it is in
8 reference to his evidence before the Board on various
9 matters.

10 ---EXHIBIT NO. 1898: Package of correspondence from
 Mr. Grant Tunnicliffe (Marceau
11 Lake Cottagers Association).

12 MR. FREIDIN: Madam Chair, can you advise
13 whether that document was submitted by Mr.
14 Tunnicliffe's by way of answers to undertakings given
15 or whether it was volunteered by Mr. Tunnicliffe on his
16 own account?

17 MADAM CHAIR: It appears to be an answer
18 to follow-up information provided by the MNR and the
19 Ontario Lumber Industry with respect to what he had
20 said at the hearing, and a number of things are
21 addressed, but his main concern has to be the crossing
22 of a cold water fishery that was recognized as a trout
23 stream by the MNR.

24 MR. FREIDIN: Okay. I guess we'll just
25 have to look at it.

1 MADAM CHAIR: You'll have to take a look
2 at it, Mr. Freidin, and there are extra copies here.

3 MR. FREIDIN: Thank you.

4 MADAM CHAIR: Exhibit 1899 is
5 correspondence from the Canadian Paperworkers Union
6 signed by Mr. Kevin Hobbs and this is dated June the
7 24th, 1991 and this is regarding the Espanola community
8 hearing in which Mr. Hobbs appeared before the Board
9 and discussed the situation of, I believe it was drum
10 pesticides or herbicides that had been buried near some
11 site and he's providing further information on that.

12 ---EXHIBIT NO. 1899: Correspondence from Mr. Kevin
13 Hobbs (CPU) dated June 24, 1991.

14 MADAM CHAIR: Exhibit 1900 is a two-page
15 letter from a Mr. Charles Parohl, that's spelled
16 P-a-r-o-h-l of Red Rock, Ontario and the letter is
17 dated July the 25th, and it is a two-page letter to the
18 Board with Mr. Parohl's comments about various aspects
19 of timber management.

20 ---EXHIBIT NO. 1900: Two-page letter dated July 25,
21 1991 from Mr. Charles Parohl.

22 MADAM CHAIR: Exhibit 1901 is a one-page
23 letter with a series of articles that appear to have
24 been copied from a July 14th, 1991 Chronicle Journal
25 series and this letter is from a Mr. Bill Winterburn

1 whose address is in Nipigon and there's no date on it,
2 and I believe the matter has something to do with
3 respect to the translation of the notice of this
4 hearing into Oji-Cree.

5 ---EXHIBIT NO. 1901: One-page letter with series of
6 articles copied from July 14th,
7 1991 Chronicle Journal series and
 letter from Mr. Bill Winterburn.

8 MADAM CHAIR: As a matter of course we
9 bring before all the parties all the correspondence we
10 have received and we are simply following that custom
11 we have set with this correspondence.

12 And I believe the final matter is that
13 this summer the Board has hired two additional staff
14 people, and I don't know if any of you have introduced
15 yourselves or not but you're certainly free to do so.
16 The first person we hired late June was a Mr. Ron
17 Beram. Mr. Beram will be acting as legal counsel to
18 the Board and will be involved in information
19 management for us. The letter of retainer to Mr. Beram
20 is being held by Mr. Pascoe. If anyone is interested
21 in seeing that, please go ahead. And, again, the Board
22 encourages you to acquaint yourself with Mr. Beram.
23 He's at 151 Bloor Street West.

24 The second person who has joined our
25 staff this summer is Frances Hart. Frances will also

1 be involved in information management for the Timber
2 Management Hearing panel and she can also be contacted
3 at the Board's office on Bloor Street.

4 Excuse me, there are two more matters.
5 The first has to do with a letter we were handed just
6 as we walked into the hearing room, it's dated August
7 the 20th, it is from Mr. Christopher Reid who
8 represents OMAA and Mr. Reid seems to be proposing in
9 this letter - although we have to go over it more
10 carefully - he seems to be proposing that he wants to
11 add one or perhaps two witness panels to his case. The
12 Board will consider Mr. Reid's request.

13 I think Mr. Reid will have to demonstrate
14 to us that the evidence that he wishes to present in
15 addition to what he has already submitted to the Board
16 by way of witness statements is relevant and something
17 important for the Board to hear before we would
18 acquiesce to this sort of a request.

19 MR. CASSIDY: Madam Chair, do you
20 anticipate that discussion with Mr. Reid will take
21 place with the commencement of his evidence next week?

22 MADAM CHAIR: Well, Mr. Reid isn't here
23 in Thunder Bay this week and we won't be going to North
24 Bay, so I think the first chance we'll have to talk to
25 Mr. Reid is Monday.

1 Do the other parties have copies of this
2 letter?

3 And on a final matter, the Board has been
4 waiting to hear from the Ontario Federation of Anglers
5 & Hunters. As you recall, we had a presentation from
6 Mr. Hanna in May where Mr. Hanna, if his client decided
7 to present its case, he committed to staying close to
8 the timetable that the Board Board had determined would
9 be the timetable until the end of this hearing, which
10 means that Mr. Hanna's client will begin their case in
11 November of this year.

12 Subsequent to hearing Mr. Hanna, we
13 understand that we were notified by Mr. Hanna that the
14 Ontario Federation of Anglers & Hunters and the
15 Northern Ontario Tourist Outfitters had decided that
16 they would present a case jointly to the Board.

17 Following that, or around the same time,
18 we understand the intervenor funding decision was
19 released and we have been waiting for Mr. Hanna to get
20 in touch with us since then because the Board really
21 has no idea at this point whether the Ontario
22 Federation of Anglers & Hunters is proceeding with a
23 case or not.

24 If the parties have any information you
25 might be so kind as to tell the Board. The Board's

1 position at this point is that the Ontario Federation
2 of Anglers & Hunters, if it intends to present a case
3 to the Board, will begin in November of this year and
4 we will have Mr. Pascoe inform Mr. Hanna of that, if he
5 can track him down, and until we hear any more we're in
6 the dark, but certainly our schedule doesn't
7 accommodate a great deal of fooling around with the
8 dates and not getting on with this and with that.

9 Are there any other procedural matters
10 that have come up since we adjourned for the summer?

11 (no response)

12 No. All right. Then I think we are
13 ready to begin with the presentation by the
14 LU-C.A.R.I.S. group.

15 MR. RUNESSON: I don't think I need the
16 microphone. My name is Ulf Runesson. I represent the
17 School of Forestry at Lakehead University.

18 MADAM CHAIR: Excuse me, Mr. Runesson,
19 could you come before the Board and be sworn in before
20 your evidence.

21 ULF RUNESSON, Sworn

22 MR. RUNESSON: On a procedural matter, it
23 was never understood by LU-C.A.R.I.S. that we were
24 providing evidence to the Board but we were under the
25 understanding from day one that we were providing

1 evidence, not as evidence, but as an information
2 session to the Board, but that's for clarification.

3 MADAM CHAIR: All right, thank you.

4 MR. RUNESSON: Okay. I will show a fair
5 amount of slides and I am quite disappointed about the
6 lighting conditions in here, but I think I can live
7 with that quite nicely.

8 I represent Lakehead University School of
9 Forestry, more particularly LU-C.A.R.I.S. stands for
10 Lakehead University Centre for the Application of
11 Resources Information Systems.

12 I am the remote sensor coordinator for
13 the group and the function of the group, as we'll
14 basically clarify that, we are a cost recovery group
15 within the School of Forestry, we are involved in
16 academic teaching, extension teaching and we provide
17 data to end users and we analyse data for end users;
18 end users being conservation authorities, native bands,
19 city, government, provincial government, pulp and paper
20 industry and so forth.

21 Today though we represent only ourselves
22 and we are here -- again, I am hear today to hopefully
23 give you as an objective view as possible of the
24 standardized methods to do forest depletions and, more
25 particularly so, cut-overs and I hope to be able to

1 give you a notion of how cut-overs can be done without
2 confusing the matter with burns and confusing the
3 matter with updating has already taken place.

4 And Madam Chair pointed out at the
5 beginning that we will deal by computers. I am not
6 very concerned about the computer in this presentation,
7 I am more concerned about the notion that you get an
8 idea of, again, the standardized procedures of doing
9 forest depletion mapping.

10 The views I'm presenting are our own but
11 I think you will get, I know you will get pretty much
12 the same message if you go to another centre in
13 Ontario, Manitoba, Alberta, B.C., or south of the
14 border. Very standardized procedures, they have been
15 published and we use them at the centre in a commercial
16 setting and we teach our students the very same
17 procedures.

18 The lighting conditions, as I say, are
19 bad, so some of the materials I will show or plan to
20 show I have to bypass, but that is all right.

21 I will discuss the use of satellite data,
22 particularly the use of the Landsat Program and, in
23 doing so, I will give you a very layman view of how can
24 you buy this data, how is it available, what are some
25 of the pitfalls with the data, and how do you overcome

1 that and, in particular, I will talk about image
2 tranparencies, how I will go about to use those, how
3 other centres use those, and then if we don't buy image
4 transparencies but buy the digital data as digital
5 data, how do we take that digital data and analyse it
6 with the least amount of confusion to things that can
7 go wrong. And I will deal with single date imagery,
8 multi-date imagery and, again, hopefully give you a
9 notion that this is indeed doable with some caution.

10 It is my understanding that the Board has
11 had an overview of the GIS capabilities in the past.

12 MADAM CHAIR: Yes we have, in Timmins.

13 MR. RUNESSON: Yeah. So I'm not going to
14 spend any time on that, just like to let you know that
15 our function in the group to provide these mapping
16 facilities, we provide data that eventually will go
17 into a GIS data for manipulation and sorting out later
18 on, but my function today, again, is to show Landsat
19 use for cut-over mapping.

20 Let's take a quick look at the Landsat
21 program. I just want to give you an idea of how long
22 back or how far back can we use this data and what kind
23 of quality do we have.

24 The program started in 1972. It started
25 in '72 and data started to become available for Thunder

1 Bay in '73. At that time we had Landsat 1, 2 and 3;
2 1982, Landsat 4 and 5 came in, 5 came in 1984, and I
3 wanted to be able to show you what we can use these
4 for.

5 Landsat 1, 2 and 3 gave us a resolution
6 of 79 metres in a special mode, and I want to come
7 later on and give to you what that is. Landsat 4 and 5
8 became available some 10 years ago, gave a resolution
9 of 30 metres.

10 If we take a quick look at the issue now,
11 which is looking at vegetation or not vegetation, let's
12 take a look at what Landsat is doing.

13 Landsat basically functions like a
14 camera. You have the target, which is the vegetation
15 or the lack of vegetation, or roads or soils and water
16 and so forth. Sun is providing the illumination, the
17 machine comes around every day, every time the same
18 time of day every 16 days. At that time she's
19 recording very much the same way as a camera.

20 A camera records the blue, green, red, if
21 we deal with a colour film, or the green, red or near
22 infrared which is just beyond the visual portion of
23 what you can see with the naked eye, that's what a
24 camera does. So basically a camera is a three-channel
25 device. When I talk about channels later on, think as

1 that as what we do with three-channel devices. Landsat
2 is a seven-channel device. Take a quick look at this
3 reflectants for vegetation, so on the "y" axis I have
4 per cent reflectants, what's given back to the sun, and
5 then we take a quick look at what vegetation will do --

6 MR. FREIDIN: I'm sorry, what was on the
7 vertical axis?

8 MR. RUNESSON: Per cent reflectants.

9 MR. FREIDIN: Thank you.

10 MR. RUNESSON: I'm not going to be
11 technical at all in this session, I just want to make
12 sure that we have a common base to stand on before we
13 start juggling numbers and figures and colours for
14 Landsat, okay.

15 Foresters in the past have been quite
16 guilty of throwing around this technology without kind
17 of going back to basics and taking a good look at the
18 target and I want to avoid ever doing that again.

19 So on the "x" axis I'm going to show you
20 where we sit in the spectrum. Nothing technical. When
21 the blue vegetation is low on the blue, vegetation is
22 pretty high in the green, pretty low on the red, very
23 high in the near infrared, and that's a good thing,
24 then in the middle infrared is still quite high and
25 then way out we have the four infrared or the thermal

1 region of the spectrum. The reason I point it out is
2 that Landsat will provide data on that part of the
3 spectrum.

4 MADAM CHAIR: Excuse me, Mr. Runesson, if
5 you could speak a little slower because our court
6 reporters have to take down everything you're saying.

7 Oh, excuse me. Is your microphone on,
8 sir? You don't have a microphone.

9 MR. FREIDIN: I don't think the reporter
10 got what you were referring to when you went to the
11 most right-hand portion of that diagram, so...

12 MADAM CHAIR: Perhaps you could start
13 back, Mr. Runesson --

14 MR. RUNESSON: I will start over.

15 MADAM CHAIR: That's right.

16 MR. RUNESSON: What I have again is a
17 graph showing per cent reflectants, nothing strange,
18 white is white, it's very bright kind reflectants; on
19 the "x" axis I have, where in the spectrum do we live.

20 I have -- in the blue part of the
21 spectrum vegetation is quite low in reflectants,
22 nothing strange, quite high in the green part of the
23 spectrum, quite low in the red part of the spectrum; in
24 other words, we have a green plant looking as a green
25 plant.

1 In the near infrared portion of the
2 spectrum reflectants of vegetation is very, very high.
3 In the middle infrared portion of the spectrum
4 reflectants is still very high. In the thermal part of
5 the homograph here, way out here, I'm not overly
6 concerned about it, but Landsat will provide data, so I
7 suppose I should bring it out, okay.

8 What Landsat now will do with this,
9 Landsat 4 and 5, and that is the data I'm going to show
10 you. If you later on want to know what Landsat 1, 2
11 and 3 did I will bring that up.

12 Landsat gives you seven channels.
13 Channel 1 sits in the blue/green part of the spectrum -
14 Channel 1 - Channel 2 sits in the green part of the
15 spectrum, Channel 3 sits in the red portion of the
16 spectrum, Channel 4 sits in the infrared portion of the
17 spectrum, Channel 5 sits over here, Channel 6 is the
18 thermal band way out - we're not overly concerned with
19 that - Channel 7 sits in the middle infrared again,
20 sits over here.

21 If we can agree that thermal data is of
22 no use for us for updating, I will cross that out with
23 a red pen here. Channel 7 is of use for this sort of
24 data but so is Channel 5 and the two channels are quite
25 redunant, and it was really not put in there for

1 vegetation, but it was put in to look at clay minerals.
2 So basically geology too. So we can kill that one, we
3 don't need it.

4 Channel 1 was put in to look at water
5 parameters and is again a half decent channel for use,
6 but it is very hazy, definitely quite a useless channel
7 for foresters and for this sort of data. So I am left
8 with 2, 3, 4 and 5. Out of the seven, I've got four
9 channels left and if I tell you that you don't buy all
10 seven channels but only buy three channels, the cost of
11 the data is drastically reduced, then there will be
12 some advantage to being able to pick from this set of
13 four.

14 If you take a look what soils will do in
15 reflectants, in blue pen I will draw what a typical
16 soil spectre will look like. Soils will be lower in
17 reflectants generally in the green portion of the
18 spectrum, it will be generally much higher in the red
19 portion of the spectrum than vegetation. Generally in
20 the earlier part, in the infrared it will be lower than
21 healthy vegetation, and generally as you go further out
22 there is some confusion, and then generally in
23 vegetation there's a decreasing trend for reflectants
24 and for soils, she stays fairly level until you go
25 further out.

1 The important thing to note then, if we
2 are going to distinguish between vegetation and soils -
3 and that is a good thing to do if you're looking at
4 cut-overs obviously - it is quite important that we
5 have a feel for that part of the spectrum. It is quite
6 important that we have a good feel for that portion of
7 the spectrum. In this part of the spectrum, I really
8 couldn't care less. Four or five will probably do the
9 same job. The thing is that the Channel 5 is a more --
10 is a better channel, in the sense it's a clearer
11 channel. Now generally we'll then pick Channel 5, but
12 whether you pick Channel 4 or 5 really makes no
13 difference, and you should probably pick 2 or 3. So
14 you've got three channels you can live with 2, 3, 4 or
15 3, 4, 5 or whatever combination you wish, okay.

16 Once you buy the data that way you still
17 don't have anything you can use for the data. The data
18 when it is recorded from the Landsat machine, and I
19 want to go through this properly because it is quite
20 easy to use this data in an improper way, and if we
21 take a look at a typical scene - and this over the last
22 diagram I will do - if you take a look at a typical
23 scene, the data was there to be able to record bright
24 things, soils, and to be able to distinguish different
25 kinds of soils.

1 At the same time, as a forester, you want
2 to be able to distinguish different kinds of
3 vegetation, so the machine has to do a lot and, because
4 of that, if you take a look at brightness on the "x"
5 axis, and let's assume this is one of the channels of
6 the Landsat seven channels - let's assume it's Channel
7 3, which is the red channel - then typical vegetation
8 will not be very bright.

9 Typically we think of, when we look at
10 the three channels, if it finds something very dark, in
11 the green channel, the red channel, will give a very
12 low value in the brightness value to that, something
13 close to zero; extremely bright, snow or quartz or
14 something like that, may be all the way up to 255. In
15 general, vegetation lives in the pretty dark region of
16 the histogram. I mean, if we want to be able to get a
17 good distinction, for example, for regen coming back as
18 poplar or coming back as jack pine or spruce, it is to
19 our advantage to be able to extend this range if we're
20 going to do this in a visual sense.

21 Let's assume that we looked at jack pine,
22 poplar, birch, spruce and so forth, if we find that
23 typically these values lay between maybe 20 and 63, it
24 may be very difficult for us to convince ourselves that
25 63s or thereabouts are your poplars and 55s and

1 thereabouts are your jack pines, unless we can take
2 this 20, push that to zero, take that 63 push that to
3 55, then everything will fall in place linearally along
4 the axis and now the difference between a 55 kind of
5 thing and a 63 kind of thing now has a difference of
6 maybe eight. In the new scenario it may have a
7 difference, maybe 30 to 40 and now visually we have
8 done something to this.

9 And this is exactly what is being done to
10 Landsat data when you buy a transparency. When you buy
11 a transparency you have data that's been fussed with,
12 it is not raw data, it has been altered.

13 Canada Centre for Remote Sensing and
14 Radarsat which are - Radarsat is not a vendor for
15 this - have no intent to fuss with the data to hide
16 things, they're basically trying to make a picture look
17 pretty. It's a dumb terminology, but that's basically
18 what they're doing. They're taking a picture off the
19 Landsat digital tapes, they're making it into a
20 pleasant thing.

21 In 1986 or '87 the Canada Centre for
22 Remote Sensing issued a brochure where they showed of
23 the three channels which are the best for cut-overs,
24 which are the best for roads - best in quotation now -
25 they are pretty picture fabrications to make something

1 pleasant for the end user that do not buy, or that does
2 not buy the digital data in digital form.

3 You end up with a picture that may be
4 so-called the best for cut-overs. Take a little bit of
5 a distance to that, but let me show you what options
6 you have when it comes to Landsat data and then we will
7 take a look at it.

8 Transparencies used to be a good thing
9 because transparencies were relatively cheap, at least
10 they were cheaper than digital data in digital form.
11 You could buy transparency digital data at 1:1,000,000
12 scale. You still can buy digital data 1:1,000,000
13 scale as a transparency. The problem with this, you
14 may think you've got a product that is geometrically
15 fixed. The product though it is not geometrically
16 fixed, you get something that looks like this.

17 MADAM CHAIR: Excuse me, Dr. Runesson,
18 did you say geometrically or geographically?

19 MR. RUNESSON: Geometrically.

20 MADAM CHAIR: Okay.

21 MR. RUNESSON: Yeah. I see you are being
22 picky about the terms, so maybe I should be picky too.
23 A georeferenced scene is a scene that will look like
24 this, and I usually refer to that as a scene that is
25 not geometrically corrected. This is a georeferenced

1 scene -- these are not my terminologies. This scene
2 has been georeferenced. I simply mean that if you
3 would not buy it this way, there's a random offset of
4 each scan line, so if you have a road that you know is
5 a straight road it will look like this.

6 The scanner when it's out there 700 plus
7 kilometres there is a little bit of movement in that
8 machine that when it sends down there is a random
9 offset back and forth, back and forth between the pixel
10 lines, and when that happens you get something that
11 looks a little strange. The georeferencing is simply
12 to take that out, but you still have something that
13 Radarsat, they will not give you a positional accuracy
14 on this to anything better than 10 kilometres. You
15 have roughly 185 or 172 kilometres of a scene now,
16 all right, 1:1,000,000 scale.

17 So what this simply means, you end up
18 with a transparency that is quite a nice thing and been
19 around since 1973. It's no point to putting this on
20 the transparency. This is a black and white one
21 showing one of the channels of the older machine and
22 the problem is, when you map from something like this
23 that have no geometry that you can overlay on anything
24 else, there is a problem of fitting anything.

25 You have a 1:1,000,000 scale. That

1 simply means that a one millimetre by one millimetre
2 square on an image transparency like this is a hundred
3 hectares. You're looking extremely small scale at
4 1:1,000,000. There is only one projector device that I
5 am aware of that can do something with that and that is
6 called the Procomm II.

7 Now, what the Procomm II does, is
8 basically a very expensive projector, built in Canada,
9 therefore the price, and what it does, it takes a
10 transparency and makes an approximation to be able to
11 take that 1:1,000,000 transparency and with some luck
12 and good vision you may be able to bring it down to
13 1:50,000 scale.

14 So if you're trying to take this -- think
15 of the projector like my overhead projector here, and
16 it will project on to a base map, hopefully my base map
17 have some fidelity when it comes to geometry because
18 the image never did, the image is off.

19 If I wouldn't have the lakes, there is no
20 information provided with that transparency that will
21 tell me exactly where I am, so what I will have to do
22 is to line up, hopefully, some lakes that I can find on
23 the 1:50,000 NTS sheet, if you wish, and hopefully I
24 can find something that fits okay, but it will not fit
25 over here, it will not fit over here; if I want to map

1 over there, I've got to fudge around with it again.
2 And it is very, very difficult to focus when you take
3 it down 20 times from 1:1,000,000.

4 A 30-metre buffer, for example, to lake
5 would be .03 of a millimetre on a 1:1,000,000
6 transparency - this may seem stupid - but I don't know
7 if that will show. Stay put. That is roughly
8 1:1,000,000, a 30-metre buffer on a transparency, the
9 thickness of my hair, okay.

10 I do not know of any device that I have
11 available within the School of Forestry to measure that
12 with. A mono-comparator will give me 10 times
13 enlargement and I probably can measure things -- I can
14 estimate .05 of a millimetre, I can guess it, but it
15 would be a very, very difficult thing to measure.

16 If you blow that up, if that feature
17 happens to be a very bright feature, a road or
18 something else, it will generally occupy more space on
19 the blow-up than it did on the original. Now, that's
20 an optical thing and I'm not overly concerned with
21 that.

22 So if at all in the Centre now we don't
23 touch the 1:1,000,000 transparencies because of the
24 geometric problem, so instead we go to a 1:500,000
25 scale transparency.

1 With the 1:500,000 scale transparency we
2 have the option of buying the geocoded, so we can buy
3 georeferenced, which basically means she's still
4 skewed, which means things don't fit; or we can buy
5 geocoded, which means that the 30-metre data that
6 Landsat represent now is geocoded and we have gone from
7 30 metres to a 25-metre pixel and I can buy it like
8 that, and now I have something - I don't know if this
9 will show on the overhead here because the overhead is
10 kind of dark, it will show very poorly here - but the
11 idea is that if I have one of these - which again is an
12 artist impression or something that has to look
13 pretty - is that to you now it doesn't show much
14 because it's too bright in here. I'm not overly
15 concerned about that.

16 But if I have a Procomm II I can take one
17 of these, with some fidelity bring it down to 1:50,000
18 scale, which is a 10 times enlargement. I can also do
19 it on a zoom transect scope, they are good machines.
20 The closest place to me to Procomm II would be Sault
21 Ste. Marie or Winnipeg, and with this then I can then
22 utilize some of the auxilliary data.

23 We have, for example, data from the past
24 of fire history, and I can overlay it on a base map
25 without being overly concerned that I'm going to be a

1 millimetre off, for example. A millimetre off on a
2 1:1,000,000 scale transparency is a long way, that's a
3 kilometre.

4 And with this then I can overlay it on to
5 base maps, again, 50:000. In case you provide data to
6 provincial standards, we usually come down to 1:20,000
7 and, again, for that reason we do not use
8 transparencies.

9 I know of no way to bring a 1:500,000
10 transparency or a 1:1,000,000 transparency down to
11 1:20,000 Ontario base map. I know of no way to bring
12 it down to 15,840 FRI sheet, short of rephotographing
13 this thing and projecting it on the wall but, then
14 again, I feel I'm messing with geometry.

15 But as an interpretive tool, it's not a
16 bad thing. I will be able on these to see general
17 areas of hardwoods, general areas of softwoods, water,
18 urban sprawl, cloud - which is a general serious
19 problem around here - I will be able to see areas of
20 depletion. It will be my brighter areas, depending if
21 the pretty picture was made to look like a coloured
22 infrared photograph, and it's generally not a problem
23 to identify, poor geometry or not, that you have a
24 reasonably recent cut-over.

25 It is though very difficult to determine

1 on a transparency what you have. You may be able to
2 say I think I have a cut-over that is less than 10
3 years old, but I don't know of any method to draw the
4 line where you say it's 10 years old, five years old,
5 and 20 years old. Generally though, with some
6 experience and local knowledge, you can get reasonably
7 okay with the recent cut-overs. The problem are the
8 older cut-overs and recent and older fires. Swamps are
9 not generally a problem and I will show some examples
10 of that. This is not bad, I can show some of that.

11 This is one of these 1:500,000
12 georeferenced scenes made to look pretty again. This
13 is one of these "the best" for cut-overs that the
14 Canada Centre for Remote Sensing have issued, okay.
15 And although this is - and I apologize for the light in
16 here, but I have not much control over that - generally
17 areas of green are generally areas of no concern.

18 Generally areas of pink, red, towards
19 white, are areas that are reasonably depleted, whether
20 it's fire, logging or whatnot. There is not enough
21 defoliation around here that I'm aware of that would
22 cause it to look like this, but generally areas of
23 defoliation.

24 The yellow areas are areas of
25 uncertainty; they can be fires, they can be burns, but

1 it's very, very difficult to tell how old they are.

2 I'm not overly concerned with that.

3 If you have an image transparency that
4 has some geometric fidelity and a Procomm projector, it
5 would not be a very difficult task to take one of
6 these, project it onto a base map, show a fire history
7 and thereby know which of those yellow areas we don't
8 need to concern ourself with, or to project it on a
9 1:50,000 base map with the last inventory we showed.
10 It may be some of those yellow areas are then shown in
11 the last inventory and I need not concern myself with
12 those.

13 But, again, we don't generally map the
14 1:50,000. So generally in the LU-C.A.R.I.S. Centre we
15 do not use this. Had we, however, been in a situation
16 where we were asked to do this sort of data, we would
17 have picked up a Procomm and done it to 50,000 scale
18 with the reservation that it's a stratification tool.

19 Now, if we switch from transparencies and
20 instead turn to a digital mode, a lot of people in the
21 past that I've talked to have said: We cannot afford
22 digital data because it is so expensive, therefore, I
23 will buy the whole province and cut on transparencies.

24 There really is not a significant price
25 difference in this sort of data anymore, and with

1 digital data, I buy raw data in the sense of
2 radiometric, quality which means it has not been fussed
3 up to look pretty.

4 I have the three channels, the seven
5 channels, whatever one I buy, and it is my task as a
6 forester and LU-C.A.R.I.S. with remote sensing
7 expertise to make something useful here while hopefully
8 I can walk around the pitfalls of interpreting wrong,
9 and to me that is the bottom line with this.

10 If I turn this thing on. The first
11 picture and, as I said, I'm going to switch to a
12 digital mode and I'm going to buy the data in this
13 format instead.

14 This scares a lot of people thinking that
15 this now is going to get difficult. To the contrary,
16 things will get simpler because, again, these are
17 standardized procedures, there is nothing strange about
18 it and, hopefully, some of the interpretation and
19 subjectivity that led to digital data in the first
20 place when it came about.

21 Digital data has the advantage of being
22 able to apply some algorithms and some street smarts as
23 a forester to walk around some of the subjectivity,
24 meaning the two foresters can stand and argue for a
25 whole day about if that's a cut-over or is it a 25-year

1 old burn. There are ways around that in a digital
2 sense, and that is what I want to show.

3 The first picture simply shows the seven
4 channels. I want to quickly come and do this. Grant,
5 can you come and do the slides for me?

6 Grant Mitchell is the GIS expert in the
7 LU-C.A.R.I.S. Centre and I am presenting on behalf of
8 him today.

9 Now, the first picture simply shows
10 channel 1, the blue/green, very hazy. What I have done
11 here, I have prettied them up the same amount, if you
12 wish. I hate to use that term, but that is all I've
13 done now. I made something that looks okay to me, but
14 I do not need to pretty them up to get useful data.

15 I basically went and stretched them, or
16 some people call this contrast enhancement, to make
17 them look a little better, but they have done exactly
18 the same way.

19 The first one, very bright, very hazy,
20 very useless. The second one you can't even see. The
21 third one you can't even see either. They are very
22 dark but they have a tremendous amount of information.
23 If I pretty them up, then you can see it. The computer
24 already sees that there are brightnesses and darknesses
25 in here that are important.

1 Blue/green, green, red -- the first, the
2 infrared, this is channel 4. This is channel 5. But 4
3 is the best channel of the set. This is channel 6, the
4 thermal channel. Looks pretty useless until I again
5 fussed around with it to show you that there is some
6 information in it. Lakes are darker, it means that
7 they are cooler. Surrounding vegetation is warmer but,
8 again, I'm not interested in this as a forester.

9 Channel 7, which you can't see again
10 because it is too bright in here, again is a very dark
11 channel. If I can pretty that up I can make it look
12 pretty much as these two. It shows pretty much the
13 same information.

14 The next one.

15 MADAM CHAIR: Excuse me, Mr. Runesson,
16 will you be leaving behind any copies of these slides
17 or --

18 MR. RUNESSON: I have no problem with
19 leaving the whole set or providing you with a whole set
20 at a later date.

21 MADAM CHAIR: All right. Should we put
22 some exhibit numbers on what we're seeing in the event
23 that we're going to want to go back over this material.

24 Sorry to do this to you, Mr. Runesson.
25 Do the parties want Mr. Runesson to start over and we

1 will simply give different exhibit numbers to what we
2 have seen, or is there someone who is going to
3 volunteer to look over this material afterwards and
4 assign some numbers to it?

5 MR. FREIDIN: I'm just wondering before
6 we start that, Mr. Runesson, whether there are numbers
7 on these slides?

8 MR. RUNESSON: I will provide a number
9 for you today and you can have the set.

10 MR. FREIDIN: Well, as we go through if
11 you went back to --

12 MR. RUNESSON: This is No. 1.

13 MR. FREIDIN: If we go back to the slide
14 before this and call that slide No. 1, which is a slide
15 depicting --

16 MR. RUNESSON: I will give you a
17 description not today, but I will give you a number and
18 then I will give you the description in a couple of
19 days.

20 MADAM CHAIR: Okay, that will be helpful.

21 In the meantime, I think we will start
22 with the channel slide showing five channels that ---

23 MR. RUNESSON: These are seven channels.

24 MADAM CHAIR: --can be seen by the eye
25 based on the others that are invisible, and why don't

1 we start this as slide --

2 MR. FREIDIN: Slide 1.

3 MADAM CHAIR: Slide 1.

4 MR. RUNESSON: Fair enough. I do not
5 feel responsible for the poor light quality here that I
6 feel was supposed to be taken care of before we showed
7 up here.

8 MADAM CHAIR: No, we're in no way being
9 critical. It's just when we read what you're telling
10 us on the record later on we will want to look through
11 the slides at the same time.

12 So let us call this slide 1.

13 MR. RUNESSON: Fair enough. Fine.

14 MS. SWENARCHUK: Can we give the group of
15 slides though, reserve an exhibit number for the number
16 of slides.

17 MADAM CHAIR: Yes, it will be Exhibit 1902,
18 and there are some that we have already seen that we
19 will subsequently give numbers to, and we start in the
20 middle at No. 1.

21 ---EXHIBIT NO. 1902: Series of slides presented by
22 Ulf Runesson on behalf of
LU-C.A.R.I.S.

23 MR. RUNESSON: For the record again, so I
24 do not have to harp on this later on, maybe it will be
25 a suggestion to the Board that if members from the

1 public who may present in the future, that it may be
2 clear to that public that they are providing evidence
3 and not information to the Board. There is a
4 difference.

5 MADAM CHAIR: Yes. The way that we
6 operate here, Mr. Runesson, is everyone who talks to
7 the Board, everything that they say goes on the public
8 record.

9 MR. RUNESSON: I understand that, but it
10 would not be very difficult to provide even
11 information, I would have had this information for you
12 directly before I started.

13 MADAM CHAIR: I agree.

14 MR. RUNESSON: When it comes to exhibits,
15 yes.

16 MADAM CHAIR: I agree with that and,
17 exactly, you should have been told that.

18 MR. RUNESSON: Yes, okay.

19 MADAM CHAIR: Thank you.

20 MR. RUNESSON: Now, can I have the next
21 picture?

22 What this is is a digital version of a
23 185 or 172-kilometre Landsat scene from this part of
24 the world, boreal forest. It is not a transparency,
25 the transparency will look better than this, it is a

1 channel 5, 3, 2 made to look like a green forest. I
2 can make it look like a red forest, purple forest, any
3 kind of forest we want. I am not really concerned with
4 that right now.

5 But what it shows us, as we are sitting
6 back - and I'm sure you can see it too - it shows us
7 the areas of general depletion. This is a fairly big
8 area of depletion. It is a 10-year-old cut-over, or is
9 it, it is a 10-year-old fire. This is fire 46. Okay.
10 Fire 46, fairly extensive.

11 This is also something that looks like a
12 10-year-old fire. This is something -- I know this
13 fire cut-over, but by having my geometry together I
14 simply went to verify this from 1973 and having history
15 data I went to look at 1973 - can you put that up
16 please - and in 1973 that area indeed shows as a
17 depletion.

18 And I went this afternoon and looked at
19 the old depletion maps and the old cut maps for the
20 companies involved here. And it was cut probably
21 between 1965 and 1971. But that is not a concern of
22 mine right now. But it tells me one thing, it looks
23 the same on the imagery as this does but it definitely
24 is not the same sort of animal, it is something that is
25 twice as old, looks the same.

1 The bright areas in here are areas of
2 generally fairly new depletion. How old I do not know.
3 I am not overly concerned with that right now. I will
4 later on come in and show you this area, we can look at
5 that more specifically.

6 Next slide, please.

7 MADAM CHAIR: Excuse me, Mr. Runesson.
8 On slide 2 that we just looked at, the other photo --

9 MR. RUNESSON: This is a 1973 image print
10 made from Landsat of the same area in 1973. This was
11 the first image done over Thunder Bay.

12 MADAM CHAIR: All right. And when you
13 sit down to interpret your Landsat data, do you
14 often -- is that the raw data you get from Landsat;
15 that sort of photograph?

16 MR. RUNESSON: No, raw data is -- this is
17 the data that is raw.

18 MADAM CHAIR: All right. Okay. And then
19 do you do those sort of blowups yourself of the
20 photograph?

21 MR. RUNESSON: No. This is something
22 that was brought in for today. I will have that on
23 tape too and I will simply then amalgamate the old tape
24 with the new tape and I will show that procedure later
25 on, how you can avoid any confusion what you are

1 looking at by looking at more than one date, and I will
2 show that later on. Okay.

3 MADAM CHAIR: Okay, fine. Thank you.

4 MR. RUNESSON: Next slide, please.

5 MR. FREIDIN: Slide 3.

6 MS. SWENARCHUK: I think you mean Exhibit
7 No. 2, the photograph blowup.

8 MR. RUNESSON: This is something I asked
9 to --

10 MADAM CHAIR: Excuse me, Mr. Runesson,
11 sorry. The photograph I think we will -- let's call
12 that photograph -- why don't we just say slide. We
13 will call that slide 3 and we are now moving on to
14 slide or item 4, whatever you want to call it. All of
15 this is under the Rubrick of Exhibit 1902.

16 Please go ahead.

17 MR. RUNESSON: This is something I've
18 been waiting to show you what this projector looks like
19 that is available throughout Canada, throughout
20 Ontario.

21 MNR owns one of these, Ducks Unlimited
22 owns one of these. There's probably 30, 40, 50 of
23 these around Canada. This is a Procomm II projector.
24 You put your image transparency in the platen, there is
25 an optic tab that goes up to here and it projects onto

1 the table you put your base map on. There's nothing
2 strange to this thing, but it is a 20- to \$30,000
3 projector. So that's one reason why some people do not
4 buy this one. For that amount of money you can buy
5 yourself a new image analysis system.

6 MADAM CHAIR: Excuse me. Did you say the
7 Ministry of Natural Resources had one or more of those,
8 Mr. Runesson?

9 MR. RUNESSON: Yes. The closest to
10 Thunder Bay will be Sault Ste. Marie.

11 MADAM CHAIR: Thank you.

12 MR. RUNESSON: Yes. And my understanding
13 is that the Ministry of Natural Resources primarily
14 uses these for mapping fire in a stratification mode.

15 Next slide, please.

16 So what I want to show you now is that
17 how do you go about to do this from single date, taking
18 advantage of the fact that this is digital data, to
19 something - next slide, please--

20 MR. FREIDIN: Slide 5.

21 MR. RUNESSON: --to something that we
22 have made some decisions upon, meaning we have
23 cut-overs, we have lakes, we have whatever.

24 So let's go for next slide, please.

25 MR. FREIDIN: Just one moment. Can you

1 go back one slide.

2 MR. RUNESSON: Yes, go back one slide.

3 MR. FREIDIN: Did we speak to that one?

4 I don't think so.

5 MR. RUNESSON: No need to speak about
6 this one. I will show this one later on in a little
7 more detail to give an idea what you see.

8 MR. FREIDIN: But I won't interrupt you
9 because if you will be numbering these slides in the
10 order that he is speaking to them, Mr. Mitchell, we
11 have to have some way to make sure --

12 MR. RUNESSON: This slide will come later
13 on as a separate number.

14 MADAM CHAIR: All right. Let's strike it
15 now, Mr. Freidin. We'll give it a number --

16 MR. RUNESSON: I will show this slide
17 again, it will be a separate number.

18 MR. FREIDIN: All right. So go to the
19 next slide which you did speak to, which is slide No.
20 5 --

21 MR. RUNESSON: Yes.

22 MADAM CHAIR: Excuse me, Mr. Freidin. I
23 am calling slides, photos, items the same numbers and
24 this will be No. 6. No. 5 was the photograph of the
25 Procomm projector.

1 MR. FREIDIN: No. Slide No. 3 was the
2 '73 -- pardon me, slide No. 4 was the Procomm projector
3 by my record.

4 MR. RUNESSON: Take it back out. This is
5 a 1990 September scene from the Landsat thematic map,
6 the boreal forest regions, block cut, three acres
7 each -- three hectares each, roughly.

8 MADAM CHAIR: Is that No. 5 or 6?

9 MR. FREIDIN: That will be No. 5.

10 MADAM CHAIR: Slide No. 5.

11 MR. RUNESSON: Okay. Let's go to the
12 next one.

13 MR. FREIDIN: Slide No. 6.

14 MR. RUNESSON: Yes.

15 This is something I want to come back to
16 later on, not this one in particular, but something
17 very similar, is how do we go from the one I showed
18 earlier showing the block cuts to something that looks
19 like this with the least amount of effort and the least
20 amount of subjectivity to get some kind of a notion of
21 what we have as supposedly close to the truth.

22 Next one, please.

23 To get our reference straight, this is a
24 Landsat TM scene from Thunder Bay, channels 5, 3, 2
25 flown on July 25, 1987. You are sitting right here at

1 the Valhalla by the airport, the Thunder Bay bog or
2 whatever you want to refer to that as and my home, the
3 university.

4 Okay. Next one.

5 MADAM CHAIR: That was No. 7, Mr.
6 Runesson?

7 MR. RUNESSON: Yes.

8 Now, starting then with the different
9 renditions of the Landsat data, before I show you the
10 procedures how I go about to do this without
11 interpreting too much, I want to show you some of the
12 things that I need to concern myself with as an
13 interpreter or as a forest analyst doing this sort of
14 work.

15 Again, we have our roads, we have
16 cut-overs, maybe we don't have cut-overs, maybe we are
17 into fire. It will be quite difficult for me to say
18 just looking at this right now.

19 Looking at the patterns in here, not much
20 of a question to look at it, at depletion due to
21 cutting. Here we have newer depletions. There's
22 roads, road patterns and so forth. Not much of a
23 question.

24 Go for the next one, please.

25 Again very much of the same thing,

1 channels --

2 MADAM CHAIR: Slide 9.

3 MR. RUNESSON: Slide 9. Same channel
4 assignments, but I prettied it up in a different way.
5 It is very much the same channels, 5, 3, 2 made to look
6 like a color photograph, same thing. And, again, the
7 features that I need to concern myself with are the
8 things that don't usually show up.

9 This, for example, is a wet bog. Had I
10 not known that, let's assume that that had been
11 prettied up to look like a cut-over, not much of a
12 concern, because if the digital data is available for
13 other things, for example, the forest resource
14 information data may be available either in digital
15 form or a map form, if I see things that I get confused
16 with, simple geometry is good, I can locate myself to
17 being maybe within 20, 25 metres and I know where I am
18 and I can very quickly tell myself: Don't get overly
19 hyped up over this one because it is not a cut-over, it
20 is not a fire, it is some kind of a swamp or bog.

21 It also shows me, again, that there is
22 buffers left to the lakes which again is a good hint to
23 me as an interpreter to see if I am looking at fire or
24 cut-over.

25 Next one, please.

1 MR. FREIDIN: Slide 10.

2 MR. RUNESSON: Okay. This is an example
3 of things that make me cringe a bit when I do this, and
4 what it is, is depletions moving into fires. This
5 makes it very difficult, especially from a single date
6 scene where I really do not know what I have.

7 It is not difficult for me to draw the
8 boundaries around this. If I blow this up I will see
9 the buffers to the lakes, and if I enhance this I may
10 enhance the roads to scream at me. But, again, it may
11 be very difficult to say: Where do I draw the boundary
12 into the fire area.

13 Clouds in here. If this had been a
14 transparency and I had seen a cloud like this and I had
15 some information underneath that was of importance, I
16 would have a hard time to interpret this. With this
17 cloud sitting here, if I had to look at underneath the
18 cloud I can back off on one of the channels to make it
19 easier to see this area underneath.

20 Generally the further to the blue that
21 the channels are the more they are affected by haze and
22 this kind of clouds and, in that case, I will back off,
23 look at two channels only and have a better distinction
24 what is underneath that cloud.

25 Same thing, the cloud shadow. Clouds

1 throw shadow and that causes a problem.

2 Next one, please.

3 MADAM CHAIR: Excuse me, Mr. Runesson.

4 To what extent? Is this a common
5 occurrence for the Landsat imagines to have that cloud
6 interference?

7 MR. RUNESSON: To give you an example,
8 last summer in Thunder Bay we acquired a TMC for the
9 Thunder Bay region showing the City of Thunder Bay.

10 MADAM CHAIR: What, a TM...?

11 MR. RUNESSON: Thermatic map, you see
12 it's all Landsat. Last summer it comes around every 16
13 days and we almost lucked -- on that one we only got
14 one scene for the entire summer on the City of Thunder
15 Bay without cloud. It is a problem we have to live
16 with.

17 MADAM CHAIR: And did you just say to us
18 with respect to seeing what is under the cloud you can
19 then go to an FRI map or other data to interpret that?

20 MR. RUNESSON: Well, that's one thing I
21 can do, or I can back off on one of the three channels.
22 Since I'm using 5, 3, 2 in this set, if I back off on
23 channel 2 and only display channels 5 and 3, the haze
24 caused by this sort of cloud is not as evident and I
25 have done a better distinction to see -- for example,

1 what I'm only looking for is evidence of road. If I
2 see something like this that have a great extent, I may
3 not be able to tell myself is there road or not
4 underneath that hazy cloud.

5 A dark cloud like this, there is nothing I
6 can do about that, but something that looks like this,
7 primarily I want to see is there evidence of logging
8 roads, and if there is evidence of logging roads it
9 gives me some kind of evidence that there still may be
10 a fire. But it gives me a hint at least there has been
11 cut, they may have burnt too. But if I see evidence of
12 roads I have something. Okay.

13 MR. FREIDIN: Slide 11.

14 MR. RUNESSON: Okay. Same sort of thing.
15 I am looking at cuts, I am looking at recent or
16 reasonably recent cuts, again, moving into a fire
17 situation. And normally what I do in a digital setting
18 is that I will enhance this imagery, and I have it done
19 but it doesn't show up quite nice in the lighting here
20 on the projector.

21 But what I will do is I will enhance this
22 imagery to make faint roads stand out and if I do not
23 see faint roads in this area I can draw my quick
24 conclusion that this was not cut and I will then draw
25 the conclusion that if I see faint roads showing up in

1 this area, yes, indeed I have a clearcut of some sort.

2 I may not know still how old it is, that
3 I need some other methods for. And one method in the
4 single data imagery is that I can refer myself to the
5 last depletion of the depletion mapping that was done,
6 again, local knowledge and so forth.

7 Can I go to the next one, please.

8 MR. FREIDIN: Slide 12.

9 MR. RUNESSON: This is the same as the
10 previous one. It is enlarged four times to basically
11 show that one trick of the trade, providing that the
12 standards are followed, is that if I find buffers
13 around lakes I generally assume that I am looking at a
14 cut-over not a burn.

15 But, of course, there are examples when I
16 know darned well that it is not a fire and I do not
17 find a buffer. But generally it is not really a
18 crucial problem. I usually find a lot of stick roads
19 and if I find the roads, I generally know I am looking
20 at a cut-over.

21 This is something that is generally
22 doable and I want to underline transparency as well,
23 that you cannot enhance roads that are very faint on a
24 transparency. On this I can enhance the road network
25 quite nicely so it shows up much, much better by doing

1 something called edge enhancement.

2 Edge enhancement is only for my visual
3 interpretation to find roads, it has nothing to do with
4 me delineating the boundaries. It is just for me. I
5 will run an edge enhancer that will primarily look at
6 linear features and make them more visible to me and
7 that way I can tell, hopefully, that I have some kind
8 of activity in the area that is not a fire.

9 Next please.

10 This is one of those examples. This is
11 an example of Landsat TM, same channels again, looking
12 very different because, again, I will make them look as
13 pretty or as bad as I wish to show the features I am
14 after. I am not overly concerned on having this pretty
15 for somebody else, this is only for me as an
16 interpreter.

17 And, again, what we are looking at here,
18 I was chasing buffers here and, again, I will find more
19 buffers. This is fire 46 by the way. 1980, fire 46,
20 part of it.

21 And, again, very little evidence of any
22 road network in this and I had to draw the conclusion
23 that I'm not looking at forest depletion due to
24 cut-overs, I'm looking at forest depletion due to
25 fires.

1 What this is I really do not know. Okay.
2 I could find out by some other method I will come later
3 on to, but a single date single imagery like this,
4 there is a fair amount of guessing unless I have access
5 to -- let's assume that was a swamp, if the digital FRI
6 layer of the Ontario base map does exist, since I have
7 my geometry in check, it will be very simple for me to
8 go and overlay all the swamps in this area and simply
9 tell myself it is not a fire, it is a swamp. Do not
10 concern yourself.

11 Next. Okay, go to the next picture,
12 please.

13 MADAM CHAIR: This is slide 14.

14 MR. FREIDIN: The one we've dealt with
15 looking at the blue is slide 14?

16 MADAM CHAIR: Yes.

17 MR. RUNESSON: In a situation like this
18 it will be nice if all cut-overs were this easy to do,
19 because obviously we have no idea what we have scene.
20 In a transparency mode these blocks will be rather
21 difficult to measure, but this still can be done from
22 1:1,000,000 transparency. These blocks are roughly
23 three hectares in size.

24 And to do this sort of analysis I can
25 have a number of different approaches, and I wanted to

1 describe, based on this slide, one approach which was
2 quite popular when Landsat first came about, and that
3 approach was to assume the computer could do
4 everything, and that approach was based on that you, as
5 the interpreter, went into one of these open areas
6 where the trees have been removed.

7 You then told the computer that that area
8 is very representative for cut-over. You then went to
9 another block and did the same thing. You then went to
10 another block, and these are a little darker, which
11 means that maybe they were cut a number of years
12 earlier. You basically trained the computer by
13 building up a signature file, if you wish, with these
14 known areas.

15 This whole process is called a supervised
16 classified -- a supervised classification. Then, based
17 on that, the computer will build the statistics for
18 those three channels that we have provided; 5, 3, 2.
19 It will know, for example, that that cut-over maybe is
20 always high in the red, low in another channel and
21 middle in something else and, hopefully, we will find
22 a trend within those patches of cut-overs that I have
23 given the computer.

24 If it can find and distinguish a trend,
25 it can then go on and search the rest of the scene in

1 an automatic mode and give me what it believes to be
2 the cut-over based on what I gave at the beginning.

3 That is a supervised process but it's a
4 pretty poor process because it assumes that I have very
5 good knowledge of the variation that can take place
6 with cut-overs, and that will be a very difficult thing
7 to do. Cut-overs can be recent cut-overs, cut-overs
8 with a lot of brush, cut-overs with slash that turned
9 brown because it was cut in the winter, they can be
10 cut-overs to five years old, come back to harvested
11 woods, cut-overs to 10 years old and so forth. It is
12 very difficult in a supervised sense to get the
13 variability without having to do the whole thing.

14 Next one, please.

15 MR. FREIDIN: Slide 15.

16 MR. RUNESSON: Yes. So let's then take
17 the approach we would normally take on a single date
18 Landsat imagery, and that's something I refer to as the
19 unsupervised classifier, often referred to as cluster
20 analysis.

21 The first step then, I buy the data
22 uncorrected from the vendor which means I buy
23 georeferenced data that needs to be geocoded. The
24 reason I do it myself is the cost associated with
25 buying geocoded data, and I generally feel I have a

1 better control over my geometry by doing it myself.

2 So I take an uncorrected Landsat image,
3 in this case we're looking at a huge fire, we're
4 looking at supposedly new cut-overs, we're looking at a
5 swamp, we're looking at reasonably new cut-over. How
6 do I know that is a swamp and not a fire, again, when
7 this is geometrically corrected I can go into other the
8 databases that may exist or simply a planimetric map
9 that shows bogs and swamp, for example, this will show
10 up as a bog or a swamp. So I don't need to concern
11 myself. It is something that is quite easily taken up
12 by the other database.

13 Next one, please. My first thing then is
14 to geometrically correct or geocode the image. So what
15 I think is long/lat coordinate such and such or UTM
16 coordinate such and such also falls in the imagery. So
17 I can then take the corner of a road and find the same
18 corner of another road.

19 What you're seeing here is two images
20 overlaid. You're seeing the red rendition of Landsat
21 5; 5, 3, 2 channels. The bluish ***cyan is a ghosted
22 image, it's the same thing that's been geocoded, but
23 what you see if you lock up the cut-over in the left
24 portion where I have the green circle, but the
25 geocoding, I have pivoted the whole scene and the

1 original north pointed to the left, the original north
2 now will point to the north.

3 MADAM CHAIR: Excuse me, Mr. Runesson.

4 MR. RUNESSON: Yes.

5 MADAM CHAIR: Your original data that's
6 not geocoded is the red?

7 MR. RUNESSON: Yes, the red background.

8 MADAM CHAIR: All right.

9 MR. RUNESSON: What I have done on top is
10 overlay the very same thing just on top of the ghosted
11 to see what the geocoding does.

12 MADAM CHAIR: And where did you get your
13 reference points on the blue overlay?

14 MR. RUNESSON: I get them either from
15 1:50,000 NTS or I get them from 1:20,000 Ontario base
16 map. I will get them from the best source I can get.

17 MADAM CHAIR: And one other question,
18 where do you -- you said you purchase your
19 georeferenced data.

20 MR. RUNESSON: Yes.

21 MADAM CHAIR: And do you purchase that
22 from Landsat?

23 MR. RUNESSON: Landsat is an organization
24 that has privatized. In the U.S. of A. it's sold by
25 Eosat, in Canada it is sold by Radarsat. I buy it from

1 Radarsat in Richmond, B.C.

2 MADAM CHAIR: One moment.

3 ---Discussion off the record

4 MADAM CHAIR: Would it be that convenient
5 to have a break now, Mr. Runesson, and return to your
6 presentation in 15, 20 minutes?

7 MR. RUNESSON: Sure.

8 MADAM CHAIR: Thank you very much.

9 MS. SWENARCHUK: Do you have an idea how
10 much longer the presentation will be?

11 MR. RUNESSON: It will take approximately
12 15 to 20 minutes.

13 ---On recessing at 3:20 p.m.

14 ---On resuming at 3:40 p.m.

15 MADAM CHAIR: Please be seated.

16 Mr. Runesson?

17 MR. RUNESSON: Okay, thank you.

18 MADAM CHAIR: We're starting with item
19 17.

20 MR. FREIDIN: I think that's still slide
21 16; isn't it?

22 MADAM CHAIR: Is this the slide we left
23 off?

24 MR. RUNESSON: This is the slide we left
25 off with, that makes the second next one. No, okay.

1 So the procedure then, as I said earlier,
2 is that we have to establish our coordinates, and after
3 we have done this, now the procedure speeds up.

4 The next thing we will do, we will take
5 and run something called an unsupervised classifier.
6 We are basically asking the computer statistically to
7 take a look at the image from upper left to lower right
8 and simply see things that look different.

9 What it is at this stage we really don't
10 concern ourselves with. The computer will go at it
11 statistically, as I said, if things look different they
12 probably are different, and all we will tell the
13 computer at this time is the number of different things
14 it's supposed to look at and, in this case, I've asked
15 the computer: Give me 50 classes of things that are
16 statistically different in the image, and that's what
17 is done here for me right now.

18 MS. SWENARCHUK: You indicate that this
19 is slide 17.

20 MADAM CHAIR: Yes, that was slide 17.

21 MS. SWENARCHUK: We've now moved to slide
22 18.

23 MADAM CHAIR: That's correct.

24 MR. RUNESSON: Okay. The next slide is a
25 procedure. I take a look at those 50 classes, those 50

1 classes may be 75 classes in a different part of the
2 region if I feel the complexity of the scene requires
3 it. It may be a hundred classes, it may be 25 classes.
4 It is a number I chose because of the experience I have
5 doing this, and what I'm trying to do after that then
6 is to see -- basically what I'm doing now, I'm pooling
7 as many classes as needed to have cut-overs not confuse
8 themselves with their obvious other things being lakes
9 primarily, lakes, hardwoods and standing timber.

10 The next procedure then in this
11 unsupervised classification mode for single date
12 imagery is to recode those 50 classes into fewer
13 classes that are meaningful to us, and while doing so I
14 make myself a work map, and a work map is just a pretty
15 picture again that I will bring myself again where the
16 geometry is okay. It is a map where I will see where
17 those classes fell.

18 If I have obvious classes that fell in
19 standing timber and there's six of those, they would be
20 grouped into one and so forth. And around here I
21 usually bring it from 50 to 11 in one pass. This will
22 take probably an hour or so.

23 MADAM CHAIR: Excuse me, Mr. Runesson's
24 work map will be item 19.

25 MR. RUNESSON: The next step is a very

1 manual tedious procedure, and this step is where I go
2 from the unedited mode of 11 classes down to what
3 basically are manually cleaning it up referring back
4 and forth to my work map.

5 If I have a confusion with doing it, I
6 don't know if that's a fire, I don't know if that's a
7 cut-over, if I have some other information available,
8 if I'm after swamps, for example, I'm not quite sure if
9 it's a swamp at that stage, I will go back and forth to
10 all other types of data I have available and maybe a
11 phone call down to MNR to find out did that burn
12 between such and such time.

13 So we go from an unedited procedure,
14 manual procedure where I'm cleaning it up - it is very
15 slow - and I am cleaning up and the task now is to come
16 up with meaningful classes and meaningful classes vary
17 depending on what clients we are working with and this
18 can be standardized.

19 MADAM CHAIR: That was slide 20.

20 MR. FREIDIN: Now, looking at slide 21.

21 MR. RUNESSON: Okay. And, finally, I
22 will hopefully come up with something meaningful and,
23 in this case, the meaningful procedures have been that
24 I came up with no new depletions, I came up with what
25 is swamp and I came up with what is older depletions,

1 and I have a problem at times to tell older depletions
2 apart from swamp but, again, I will then go into
3 existing data if I have it in digital form and, again,
4 it is very important that I have the geometry in tact
5 to be able to do that with some accuracy.

6 And, in this case, I have newer
7 depletions, I have bogs, I have older depletions, I
8 have forest fires, and I have water. And at this stage
9 now I am ready to deliver to the update process which
10 is then done in the GIS environment, and I believe you
11 had a fairly good description what is then done with a
12 database like this in a digital form in the GIS. Okay.

13 MR. FREIDIN: Slide 22.

14 MR. RUNESSON: This so far has dealt with
15 the fact that I only have one date of imagery and we
16 are into a lot of guessing: Was it cut five years ago,
17 10 years ago, when was it cut.

18 Digital data appears to be fairly
19 expensive but for the date -- I mean for the
20 information you get and for the extremely extensive
21 coverage you get, digital data is probably the cheapest
22 way you can acquire this kind of data compared to, for
23 example, the flyover photography.

24 So what you are seeing now, I'm going to
25 show you in the area, in this part of the world again,

1 we are going to concentrate on this cut-over you see up
2 here. This is a 1987 Landsat 5, 3, 2 channel
3 combination July 25, 1987.

4 So a little closer view of that we
5 have --

6 MR. FREIDIN: Slide No. 22.

7 MR. RUNESSON: Sorry, yes.

8 MR. FREIDIN: Closer look is slide 23.

9 MR. RUNESSON: Yes, it is actually an
10 original look of slide 23. Is that the number we're
11 at?

12 MADAM CHAIR: Yes.

13 MR. RUNESSON: The previous slide was a
14 very reduced version of a Landsat scene, it was 100 -
15 and I go back to that one for a second - it was roughly
16 110 kilometres from edge to edge in this scene.

17 And in this slide, the way I have set out
18 previously, this is just a one to one image off the
19 screen that I have photographed and we're seeing the
20 25-metre resolution data now, channels 5, 3, 2, 1987,
21 and we're seeing some obvious cut-overs.

22 This is three years later. We are now
23 moving from July 25, 1987 to September 1990, and
24 obviously we see the old cut-overs still there,
25 although it still looks pretty much like a new

1 cut-over. Visually they look the same.

2 MADAM CHAIR: Excuse me, Mr. Runesson.
3 The difference -- the view that we're seeing now of the
4 cut-overs in the lower right corner, were they in the
5 lower right corner of the preceding slide, or do we
6 have a different scale?

7 MR. RUNESSON: This is where these new
8 cut-overs are showing up. That did not exist in 1987.

9 MADAM CHAIR: All right.

10 MR. RUNESSON: If they were cut in 1988,
11 '89 or '90 I really don't know. I know as far though
12 that they were cut between '87 and '90, yeah. So this
13 is exactly the same thing, it's just that I have added
14 a number of cut-overs.

15 MR. FREIDIN: That's slide No. 24 where
16 we have the added cut-overs?

17 MR. RUNESSON: Yes, if that's the number
18 we're at, okay. I apologize for not having the numbers
19 sequenced in advance for this.

20 So anyway, what I'm trying to show you
21 now is: How can we take advantage of the digital data
22 so we don't have to interpret anything.

23 I will now show you a process in which,
24 in a digital setting, we are going to take the two
25 dates - and remember, I have this sort of data

1 available back to 1973 - and I take the two dates of
2 data, hopefully we can pick those dates then to fall
3 into the intervals of the updating that we need to do.

4 In this case I happen to have 1987 and
5 1990 data available, usually you don't need to do a
6 three-year update, but...

7 So the first step I do, I have to make
8 the two images look identical, meaning they look like
9 they are two photographs exposed fairly close. The
10 problem I had with this one, the poplar had lost the
11 foliage. This is the September image. I can live with
12 that because it's not drastic. Cut-overs are drastic
13 things, as you see, nothing else is a drastic thing.

14 First thing I notice when I look at this,
15 I thought holy gee, I've got a lot of budworm, I've got
16 a lot of defoliation of the hardwoods by whatever --
17 not budworm, and I looked at the date and I realized
18 September date, I lost the foliage on some of the
19 poplar.

20 The next thing I do, I take one image
21 minus the other image. It's just an algebraic
22 function, and I'm not trying to be a techie here by
23 showing you something strange, it's a very simple
24 process. We have now spent maybe three minutes of
25 computer time to go from 1990 to 1987, come up with

1 difference of image.

2 The white areas in this differencing is
3 what happened in the three-year period. We obviously
4 have a lot of mess. We have systemic things that
5 happened, so we have striping in here, but it is not a
6 problem, it's the white areas that I am concerned with.

7 The red areas are the fact that I wasn't
8 that picky about making the two scenes identical, the
9 red areas are basically because lakes look a little
10 different from one year to the other. It's the white
11 areas I'm after.

12 MADAM CHAIR: That was slide 25.

13 MR. RUNESSON: Now, I want an
14 unsupervised classifier again to see if the computer
15 can lift those white areas out for me. Again, I ran 50
16 classes because, if I can go back one slide, I don't
17 want to have to sit and trace these out now, it's
18 already done for me, and what I now want the computer
19 to do, be able to identify all the areas that have been
20 changed to show up white, pull them up for me so I
21 don't have to trace anything.

22 So I ran an unsupervised classifier, 50
23 classes, I coded down to one class, cut-over or not
24 cut-over.

25 MADAM CHAIR: Excuse me, is this slide --

1 MR. RUNESSON: This is the last one I've
2 shown.

3 MADAM CHAIR: This is 27, 26 was the one
4 before.

5 MR. RUNESSON: Sorry. So what I have
6 done now, I have two classes, I still don't really like
7 this; I have two classes, maybe cut-overs, not
8 cut-overs. What I now will do I will go in and check
9 some of this indeed is cut-over and, again, I'm pretty
10 certain it is but there may be swamps and so forth that
11 is confusing itself. First I want to clean it up
12 though.

13 The first thing I do, I want to get rid
14 of this salt and pepper effect that is generally one
15 pixel by one pixel in size, which is of no concern to
16 me as a forester. So I will clean that up, and that's
17 another process that will take a couple of minutes.
18 It's not a manual effort.

19 So I now cleaned up the pepper effect but
20 it still looks like something that makes you cringe if
21 you're a manager in an area because this is too much
22 garbage in there. The next thing I will do is that I
23 will let the computer identify each area that it will
24 see as a cut-over on the screen. So I run an
25 algorithm, we're now talking a couple of minutes down

1 the road again.

2 MADAM CHAIR: Excuse me, Mr. Runesson,
3 was the previous slide 28 and this is 29?

4 MR. RUNESSON: Okay. So now the colours
5 don't really mean anything now, they're simply a coding
6 to the system that that has a logical number further
7 than that, and it has now identified each clump to
8 size. So now I will go in and say: I don't want any
9 clumps that are less than some decision that I make
10 and, in this case, I made a decision I don't want any
11 clumps that are less than a hectare in size. I could
12 have said 10 hectares, a hundred hectares, or whatever.

13 So now based on the fact the computer has
14 went and taught itself how big little each little clump
15 is, it will have done with a vertical command, again,
16 and I still have only spent maybe an hour from start to
17 finish for it.

18 I have eliminated anything that was less
19 than a hectare in size, and now I'm left with something
20 that supposedly are cut-overs. I'm fairly convinced
21 now that I may not have a cut-over but I, indeed, have
22 change. What I see on the screen now that I got that
23 quick, vertically, means that is change. If it's a
24 cut-over map, that's a different story.

25 I overlaid then on top of the original

1 image --

2 MADAM CHAIR: This is slide 30.

3 MR. RUNESSON: Okay. I overlaid then on
4 the original image, and now having an original image I
5 will then go and check existing inventory of lakes to
6 make sure that these smaller - the big patches I'm
7 pretty convinced, just looking at my work now pretty
8 quickly, they are cut-overs indeed - the smaller areas
9 I'm not so convinced. Let's take a look at, for
10 example, one of these; is it a cut-over or is it a lake
11 that lost the water, meaning a wet swamp. So what I
12 will do, and this is thirty...?

13 MR. FREIDIN: One.

14 MADAM CHAIR: One.

15 MR. RUNESSON: 31. I have simply gone
16 into the Ontario base maps that luckily existed in this
17 area in digital form and overlaid the Ontario base map
18 lake coverage on top of my image where I have my
19 classified cut-overs.

20 Since my geometry is good I can do this
21 without being without violating it, it will fit
22 directly on top of the same image and it's a very quick
23 process for me to verify what I have. And indeed it
24 shows one of my cut-overs is a lake. But, overall,
25 there is no mixing. I can also of course go into the

1 existing inventory, if it does exist in digital form,
2 and verify that this cut-over wasn't updated already
3 and, in that case, I will lift it out. I can make an
4 overlay I guess.

5 32.

6 MADAM CHAIR: Slide 32.

7 MR. RUNESSON: So if you take a look at
8 that lake, indeed it showed up white, it's changed. I
9 called it cut-over, but it's changed. I confused
10 myself.

11 So if we go to 33, here's the same thing.
12 This is a 1990 version. It shows like a cut-over. If
13 I then go to slide 34 and go to the same place the
14 cut-over is missing, it is indeed a body of water and
15 what happened in the three-year period the water
16 disappeared and it now looks like a cut-over. To give
17 you a feeling of size in this area, that is roughly 243
18 hectares in size.

19 At this time, this is 1987. If I go back
20 one slide, we are looking at now 1990 is a 1985
21 cut-over you're looking at right here and these took
22 place somewhere between 1987 mid-summer to 1990 fall.

23 So you pick your data to choose your
24 status for inventory. You do not have an
25 interpretation problem except that you may confuse

1 things with fire but then you know when it was cut and
2 we have this capability back to 1973 to be able to do
3 this overlay.

4 MADAM CHAIR: Excuse me, Mr. Runesson.
5 Did you say that you would date that cut-over in what
6 is slide 33 between 19 -- which years did you say?

7 MR. RUNESSON: I would date these
8 cut-overs between July 25, 1987 and September 3rd,
9 1990.

10 MADAM CHAIR: Right. I'm sorry, I
11 thought you said it was a 1985 cut-over.

12 MR. RUNESSON: No, I pointed at this one.
13 The reason I find that out, it took one phone call to
14 find out what the cut-over was, or I was simply going
15 into old inventory to find out how old it was. That's
16 when it give me a the notion that a five-year-old
17 cut-over don't really look any different than the new
18 cut-overs. You do not have that distinction in this
19 imagery.

20 MADAM CHAIR: Now, how many years apart
21 does the distinction become apparent; between 10 years
22 or 20 years?

23 MR. RUNESSON: I can't answer that
24 question because it depends again if the cut-over has
25 been treated, if it was coming back, if it is

1 hardwoods. I can't answer that question. That goes
2 from site to site. But it is something in this image
3 differencing mode, and that is what I am doing here
4 right now. We do not have to really question how old
5 the cut-over is, if we do a five-year update we know
6 what shows up the next five years is indeed a cut-over
7 that did not exist five years previous.

8 MADAM CHAIR: If you were looking at
9 regeneration, what would you see in the image at 20
10 years?

11 MR. RUNESSON: At the image of 20 years,
12 again, it depends what's coming back. Let me show you
13 something. I do not know if it will show up nicely in
14 here. Let me do it this way.

15 The overhead is not -- it is too bright
16 in here. At 20 years, a 20-year cut can very well look
17 like a 10-year-old burn, for example, in this part of
18 the world. So it depends what has happened to that
19 cut-over and, because of that variability, I very
20 strongly suggest that the subjectivity of this be
21 removed by simply having two dates of imagery.

22 But I have examples of fire 46, 1980 burn
23 looking very, very close to things that were cut in
24 1969. They look very, very, very similar. But I can
25 come up probably with 10 other examples that shows what

1 happens and I am really embarrassed.

2 A cut-over is a cut-over, but it is not
3 written, it changes. That is one reason why a lot of
4 centres that do this sort of work avoid this
5 subjectivity by going for two dates, and the first time
6 at it usually you do not have this luxury because you
7 always are on a budget constraint. But the second time
8 at it, the first data set is already there and the time
9 to geocode it has already been done and to geocode a
10 new image to an old geocoded image is a very, very
11 quick process.

12 We already saw that one, and that
13 basically concludes what I want to say.

14 And, in conclusion, maybe some of you
15 think that I have done sort of a technical view of
16 this, but I think we need to sort of carefully look at
17 it here in a calm manner because there is no hype about
18 this, there is no mysticism in this, and the
19 subjectivity and photointerpretation can be avoided by
20 doing digital image differencing date to date to date,
21 and with some carefulness with the geometry intact
22 single date imagery can also be interpreted with some
23 degree of reliability by utilizing other databases that
24 do exist.

25 And when it comes to transparencies, they

1 are not a bad tool, just that you have got to realize
2 what you have and that you do not have the flexibility
3 with a transparency as you have it with true digital
4 data.

5 But in a stratification mode maybe done
6 to 1:50,000 scale, transparencies are a very, very fast
7 way providing you're using the proper projector to do
8 this type of work.

9 Thank you very much.

10 MADAM CHAIR: Thank you, Mr. Runesson and
11 Mr. Mitchell.

12 Will the parties have questions for Mr.
13 Runesson? Could you indicate if you will be asking
14 questions.

15 Mr. Freidin?

16 MR. FREIDIN: No.

17 MADAM CHAIR: Ms. Swenarchuk?

18 MS. SWENARCHUK: Well, Madam Chair, as
19 you're aware, Forests for Tomorrow asked for advance
20 information about the nature of this technical
21 explanation and we wrote to the Board about this
22 question last week but, you recall Mr. Pascoe's memo of
23 July 19th indicating that he had asked the
24 LU-C.A.R.I.S. group to provide the Board with
25 information relevant to their presentation and would

1 forward same to full-time parties in attendance upon
2 request.

3 And we indicated to you last week that we
4 were concerned about this. I had spoken with Dr.
5 Runesson who indicated that he did not wish to provide
6 information in advance.

7 I hope you can appreciate the complex
8 technical nature of this and that we find ourselves in
9 a position that I hope to avoid, which is, that we wish
10 to examine the slides and data with the transcript
11 before attempting to question Dr. Runesson.

12 What I would request, since the last
13 thing we want is to take more of the Board's time and
14 Dr. Runesson's time before the Board - and I might add
15 that I attempted, obviously unsuccessfully, to persuade
16 him last week that this would constitute evidence at
17 the Board - what I would propose is that we submit
18 questions to him in writing, after he has provided the
19 Board with the set of data and we've had a chance to
20 review it, and that perhaps this could be handled in
21 writing and then, of course, provided to the Board and
22 all parties without taking more of the Board's time.

23 But I think you appreciate that the
24 information he is giving about the use of Landsat
25 information is relevant to Forests for Tomorrow and to

1 evidence we have presented.

2 With any other technical witness we would
3 have had the slides in advance, we would have had an
4 outline in detail of the evidence to be presented and
5 we would have been able to avoid this situation.

6 We tried to arrange that and were not
7 successful in doing so, and that is why I am requesting
8 an opportunity to review the information before
9 cross-examination, attempt to conduct it in writing,
10 and only if that is not thoroughly successful come back
11 to the Board and request that he be recalled. We would
12 make every attempt to avoid that necessity.

13 MADAM CHAIR: So that the Board
14 understands clearly what your client's concern is about
15 what Dr. Runesson has said in this presentation, are
16 you concerned that the Board will have a different
17 interpretation of Mr. Benson's slides on the Landsat
18 images that we saw on the clearcut evidence?

19 MS. SWENARCHUK: We think that is one
20 possible interpretation of this evidence and we think
21 that -- at the moment, and we think it would be more
22 professional to have an opportunity to review this and
23 then ask the relevant questions for the Board's
24 assistance.

25 We frankly feel unable to do that at this

1 moment, Madam Chair.

2 MADAM CHAIR: All right. Well, the Board
3 certainly appreciates the suggestion that this can be
4 done in writing and, Dr. Runesson, the Board is very
5 appreciative of you bringing this information to us and
6 we in no way want you to think that it has not been
7 done appropriately and we are not appreciative of it.
8 It is very much on point on some of the other evidence
9 we have received at the hearing.

10 As I explained before, whenever anybody
11 comes to talk to the Board we call that information
12 evidence. It can come to us in any fashion, but we
13 label it all as evidence and we give the parties an
14 opportunity to ask the person who is presenting
15 something to us what it means.

16 In this case Ms. Swenarchuk feels that
17 she and her experts have to look at what you have said
18 in your presentation so that they can understand it
19 better, and she is asking you for an opportunity to
20 write to you and have you perhaps respond in writing to
21 any questions they have about this evidence.

22 MR. RUNESSON: I would like, through you,
23 to invite Ms. Swenarchuk to come to the centre and we
24 will go through every single slide, as I have invited
25 Mr. Benson to do the same thing.

1 Mr. Benson showed up last week where I
2 explained in detail what I was showing today and I
3 thought at that time that the issue was settled,
4 whether I give a detailed presentation in advance.

5 I hope that everybody realizes that I am
6 not paid for this presentation. I am here, in my view,
7 as a public service to the Board and the reason why I
8 last week refused to take time out to sit and write a
9 detailed description of each slide and each conclusion
10 that I presented is because at that time I never
11 considered - obviously wrongly so - that I was
12 presenting evidence.

13 I thought at that time that I was giving
14 an information session and then if the Board wished to
15 subpoena me later on as a proper witness, I would then
16 show up and then give a -- like everybody else, present
17 proper documentation.

18 I regret now that that did not take place
19 and Ms. Swenarchuk did contact me last week about the
20 fact that I should submit detailed conclusions in
21 advance. But until today I never really - maybe
22 naively so - considered myself a witness and maybe I
23 should reconsider that statement.

24 But I very much welcome both Mr. Benson
25 and the legal counsel to come to the centre for a

1 detailed description on one on one with the slides in a
2 very professional setting where we do not have to worry
3 about what is seen and what is not seen because of poor
4 lighting conditions and we can take our time.

5 MS. SWENARCHUK: I think, Madam Chair,
6 you can understand that we are talking here about
7 evidence that is on the record.

8 I appreciate Dr. Runesson's offer and I
9 appreciate that he did in fact spend time with Mr.
10 Benson; they did not, however, review the slides, and
11 now that this is on the record, the questioning that is
12 to follow of course must also be part of the record,
13 and that is why I suggest for the Board's convenience
14 that it be done in writing.

15 But, as Dr. Runesson may not have
16 realized, a discussion merely with him will not,
17 unfortunately, satisfy the requirements in the process
18 of evidence.

19 MADAM CHAIR: Dr. Runesson, what is at
20 issue here is what witnesses for Ms. Swenarchuk's
21 clients have already said about the sort of uses to
22 which this sort of forest data could be put.

23 I think that the questions Ms. Swenarchuk
24 would send to you, and I hope the questions would be
25 brief and to the point and readily answerable, would

1 have to do not so much with all the details of what is
2 in your slides, but some of the implications for how
3 this information would be used or interpreted.

4 MR. RUNESSON: I have no general problem
5 of written correspondence back and forth. My concern
6 last week was simply, I am giving a public service
7 description to the Board now -- based on what I have
8 seen and heard now, if there is some detail
9 descriptions of what I have done, yeah, I would be
10 pleased to answer that, but I will not write a detailed
11 description to the Board unless the Board asks me to do
12 so.

13 MADAM CHAIR: I think - and we will go
14 over the court reporter's record very carefully - I
15 think we have down most of what you have said to us.
16 Some of the other -- before we leave this issue, it's
17 satisfactory to Dr. Runesson that you correspond with
18 him, Ms. Swenarchuk, and hopefully that will be
19 satisfactorily concluded.

20 MS. SWENARCHUK: Yes, thank you.

21 So just so the Board is clear, I will
22 await the transcripts and the availability in the
23 Board's offices of the material and then will be able
24 to formulate the questions.

25 MADAM CHAIR: Yes. What we can do

1 perhaps to help Dr. Runesson is, would you like to give
2 us the material you have shown or would you like copies
3 of that material to be --

4 MR. RUNESSON: No, you are pleased to the
5 tray now.

6 MADAM CHAIR: All right. Thank you very
7 much.

8 Well, if we can help with the
9 transportation of that material to Toronto, please
10 speak to Mr. Pascoe and we want to make this as simple
11 for you as we can.

12 MR. RUNESSON: Yes.

13 MR. CASSIDY: Madam Chair, we may have a
14 few questions upon receipt of the transcript as well
15 and propose to do likewise. If that review discloses a
16 need for a few brief questions, we propose to do the
17 same fashion as Ms. Swenarchuk.

18 MADAM CHAIR: All right.

19 Perhaps the best thing to do would be for
20 Mr. Pascoe to be the recipient of any questions in
21 writing that are going to Dr. Runesson so that he could
22 see that they all arrived at the same time and that
23 they were in a managable form and Dr. Runesson would
24 not have to communicate with people individually, he
25 could just talk to Mr. Pascoe.

1 Mr. Freidin, do you have a few brief
2 questions to put to Dr. Runesson, or do you too need
3 the benefit of transcripts?

4 MR. FREIDIN: I think I might just as
5 well deal with my questions in the same fashion as Mr.
6 Cassidy.

7 I had one concern arising out of this and
8 I am not going to make any suggestions, I just make the
9 Board aware of this: As a result of the procedure
10 which has been suggested by Ms. Swenarchuk, she has
11 changed or altered potentially the manner in which
12 parties have cross-examined.

13 As you know, the proponent cross-examines
14 last and one of the reasons that rule was made is to
15 ensure that the proponent, who can be affected by the
16 decision of this Board, can in fact question witnesses
17 or query evidence illicitly from other counsel.

18 This suggestion by Ms. Swenarchuk might
19 make that impossible. I just raise now the possibility
20 that upon receipt of Mr. Runesson's questions, if my
21 client feels that it is desirable in order to have a
22 full canvassing of the issue to ask questions arising
23 therefrom, I may come back to the Board and ask for
24 that permission.

25 The only other matter I would mention is

1 I think that as a courtesy to Mr. Runesson that the
2 Board should arrange for a copy of the transcript to be
3 made available to him so he can have some idea of what
4 we are talking about when we do ask him questions
5 because we will probably be referring to page numbers
6 and that sort of thing.

7 MS. SWENARCHUK: The transcripts are
8 available at Lakehead University, Madam Chair.

9 MADAM CHAIR: A copy of the transcript is
10 available at the Lakehead University.

11 We will undertake, Dr. Runesson, to have
12 Mr. Pascoe send you a copy of what you said to the
13 Board in this transcript.

14 What we will do, Mr. Freidin, is because
15 Dr. Runesson has come forward on his own initiative to
16 talk to the Board we will ask -- is there a problem in
17 the parties -- Ms. Seaborn, are you going to be asking
18 any questions of Dr. Runesson?

19 MS. SEABORN: No, thank you, Madam Chair.

20 MADAM CHAIR: So we are talking about
21 three parties. Is there some possibility that the
22 three of you could exchange the questions you are going
23 to be sending in writing to Dr. Runesson before he
24 receives them so that they are not duplicated and it
25 will give Mr. Freidin an opportunity to delete any

1 questions he might ask if the other parties do so.

2 All right.

3 MR. FREIDIN: As I indicated, I am more
4 concerned about the answers than I am with the
5 questions.

6 MADAM CHAIR: Let's see what we get back
7 from Dr. Runesson and Mr. Pascoe will be the person who
8 will be coordinating this effort.

9 MR. FREIDIN: Is there going to be a date
10 by which these questions should be asked, a date after
11 which the transcripts are available?

12 I do not think it should be left --

13 MADAM CHAIR: I think it should fit in
14 with Dr. Runesson's schedule and when he will have the
15 time to answer the questions, and the transcripts will
16 not be available until I would think next week.

17 MS. SWENARCHUK: Or later.

18 MADAM CHAIR: Or later. I think Mr.
19 Pascoe, once he has received the transcript, should
20 talk to the three counsel and see how quickly you can
21 put your questions together.

22 Are there any questions from the audience
23 to Dr. Runesson?

24 (no response)

25 Well, the Board thanks you very much, Dr.

1 Runesson, and we appreciate your efforts and those of -
2 is it Mr. Mitchell or Dr. Mitchell?

3 MR. MITCHELL: No, Mr. Mitchell.

4 MADAM CHAIR: Mr. Mitchell. Thank you
5 very much.

6 I guess we just have one question, Dr.
7 Runesson. Do you sell this information to the Ministry
8 of Natural Resources?

9 MR. RUNESSON: We do not sell satellite
10 data, we sell the end product.

11 MADAM CHAIR: And is the Ministry of
12 Natural Resources a client of yours?

13 MR. RUNESSON: Not with depletion
14 mapping, no.

15 MADAM CHAIR: Who are clients for
16 depletion mapping or is that a research tool?

17 MR. RUNESSON: It's a research tool and
18 the client will be whoever -- primarily in the past it
19 has been the pulp and paper industry and I think in the
20 future that we also -- indications are that the
21 Ministry will come to us, at least in the start-up
22 phase, in the training phase, to get this capability in
23 the Ministry itself.

24 MADAM CHAIR: Okay. Thank you.

25 The Board will now call on Mr. Malcolm

1 Squires.

2 Good afternoon, Mr. Squires.

3 MR. SQUIRES: Good afternoon, Madam
4 Chair.

5 MADAM CHAIR: Can the parties advise the
6 Board whether Mr. Squires has to be sworn in again.

7 MS. SEABORN: I believe he's sworn, Madam
8 Chair.

9 MADAM CHAIR: Is that a permanent
10 arrangement?

11 MS. SEABORN I think for this hearing,
12 yes.

13 MADAM CHAIR: Please sit down, Mr.
14 Squires.

15 For those in the audience, the Board has
16 heard from Mr. Squires on a previous occasion, a couple
17 of times. He appeared as a witness on behalf of the
18 Ontario Forest Industries Association and I have a note
19 today that Mr. Squires is appearing as a private
20 resident.

21 Please go ahead, Mr. Squires.

22 MALCOLM SQUIRES, Previously Sworn

23 MR. SQUIRES: Madam Chair, I will for a
24 part of my presentation be speaking on behalf of my
25 employer Abitibi-Price.

1 MADAM CHAIR: Oh, all right. I'm sorry,
2 I don't have that in my note.

3 MR. SQUIRES: Partway through I then will
4 switch to my own personal views on some matters.

5 MADAM CHAIR: All right. Please go
6 ahead.

7 MR. SQUIRES: The mike is on; is it? I
8 have a remembrance of my voice not being too clear in
9 the past.

10 MADAM CHAIR: Can people in the room hear
11 Mr. Squires?

12 FROM THE AUDIENCE: Barely.

13 MR. SQUIRES: I will try to speak up.

14 FROM THE AUDIENCE: That's a bit better.

15 MR. SQUIRES: Madam Chair, Mr. Martel, my
16 name is Mac Squires, as you have already said, I am a
17 professional forester on the staff of Abitibi-Price in
18 Thunder Bay. I'm here speaking on behalf of my company
19 and to express some of my own views and concerns.

20 Abitibi-Price first begun operations in
21 Thunder Bay 61 years ago with the purchase of the
22 Thunder Bay newsprint mill on Lakeshore Drive. The
23 Provincial Fine Papers and the Fort William newsprint
24 mills were added later.

25 The three mills have operated as separate

1 divisions, independent of each other, they're supplied
2 with their wood needs by the company's Lakehead
3 Woodlands Division. The combined production of the
4 newsprint mills has averaged 280,000 metric tonnes per
5 year and the fine papers mill 137,000 metric tonnes per
6 year at a combined market value of \$274-million per
7 year.

8 The company's operations in Thunder Bay
9 have made a significant contribution to the local,
10 provincial and national economies through employment,
11 taxes, capital, investment and community donations.

12 In relation to timber management,
13 Abitibi-Price in the Thunder Bay area has contributed
14 significantly to forest research. Between 1952 and
15 1974 the company established and maintained the Abitibi
16 Woodlands Laboratory on 6,500 hectares of land we own
17 100 kilometres north of Thunder Bay at the Community of
18 Raith.

19 Abitibi personnel performed a wide
20 variety of research projects, analysing different
21 cutting patterns for growth and yield. From 1974 the
22 lab was leased to Lakehead University for a 10-year
23 period for a fee of \$1 annually. The lease, which has
24 since been renewed to 1994, included a 1.5 hectare site
25 at Sorrel Lake containing lab buildings and

1 headquarters. The purpose of the lease was to allow
2 the University and the company to continue certain of
3 the experiments and to use the site and its experiments
4 for instructional purposes in the University's forestry
5 school.

6 Abitibi has since resumed responsibility
7 for the Sorrel Lake facilities and replaced the
8 buildings and made it the headquarters for the
9 company's own research, silvicultural and tree
10 improvement activities in the area. The buildings are
11 available to the University at a nominal fee to assist
12 with continuing maintenance.

13 Since 1974 there have been various
14 projects in forest pathology, mensuration, etymology,
15 silviculture, fish and wildlife and plant community
16 studies, plus course instructions in lab work carried
17 out at the site.

18 Today the lab area is covered with a
19 primarily mature softwood forest. Because of that the
20 University has been encouraged to extend its research
21 projects beyond the lab boundaries to sample younger
22 stands developing from the company's production
23 silviculture. In kind work has been performed by
24 Abitibi-Price for the University in the form of site
25 preparation and other treatments to augment existing

1 funding.

2 I hesitate to estimate the value of this
3 asset to the University, but it probably exceeds the
4 value of all other donations of our company in the
5 Thunder Bay area and it's limited only by the amount of
6 other resources the university has had available to
7 apply.

8 The company's injections of revenue have
9 served to strengthen our local, provincial and national
10 economies and have enhanced the quality of forest
11 education.

12 Mr. Saltarelli, the then superintendent
13 of forestry at our Iroquois Falls division, gave a
14 similar presentation to the Board in Timmins September
15 11th, 1990 and spoke of the early desire of
16 Abitibi-Price and its principals and foresters, and I
17 quote:

18 "...to be the leader in a new era of
19 forest renewal and forest tenure in
20 Ontario."

21 Much of the basis for the company's
22 thinking in forest management was developed here at
23 Lakehead Woodlands during the 1970s. During 1975 the
24 company engaged professor Ken Armson who has testified
25 before this Board, who was then at the University of

1 Toronto, to study the yield potential of the company's
2 freehold lands here in Thunder Bay to make
3 recommendation to our Board of Directors on how this
4 yield could be achieved.

5 Mr. Armson's June, 1975 report
6 recommended an intensive silviculture program to
7 maximize yield and improve security of supply. That
8 same year the company embarked upon the approved
9 program. Mr. Saltarelli was the field forester
10 responsible for developing that program. Since that
11 date a total of 93 square kilometres have been
12 artificially regenerated, 43 of which have been planted
13 with 9.9-million trees. I can relate to Mr.
14 Saltarelli's statement that, and I quote again:

15 "We, Abitibi, were the first to negotiate
16 an FMA because we wanted to be the
17 leaders in a new era of forest renewal
18 and forest tenure in Ontario."

19 I was a junior member of the negotiating
20 team and have vivid memories of the high level of
21 vision and sense of mission shared by all members of
22 both parties. That sense of vision and mission was
23 also present when we negotiated our second FMA, the one
24 now known as the Spruce River Forest.

25 It was exhilarating work working with a

1 dedicated group of professionals pioneering something
2 they passionately believed in. That sense of
3 exhilaration remains with me today.

4 Having successfully negotiated these FMAs
5 company management looked upon Mr. Saltarelli and me
6 and said: Now, make them work. With the help of a
7 dedicated group of fellow employees I believe we have
8 made them work and maintained our leadership.

9 Over the last 10 years at the Spruce
10 River Forest we have artificially regenerated 207
11 square kilometres, of which 157 square kilometres have
12 been planted with 34.4-million trees and 50 square
13 kilometres have been seeded. Approximately 40 per cent
14 of the area harvested was planted or seeded. The
15 remaining 60 per cent was deliberately managed for
16 natural regeneration.

17 To this point, Madam Chair, I have been
18 presenting real numbers such as these hearings have
19 been about for four years. At this point I'm going to
20 depart and switch gears and I'm going to convey to you
21 some of my own beliefs and concerns.

22 I would appreciate it if the Board would
23 excuse me but I am impatient with Ontario critics of
24 clearcutting because of claimed depressed yield, loss
25 of biodiversity, destruction of wildlife habitat. I

1 would like to explain for the Board's benefit the
2 reason for my impatience.

3 I was born the son of a Newfoundland
4 pulpwood scaler in 1939. I lived for 18 years in the
5 small central Newfoundland logging community of
6 Millertown on the same latitude as Thunder Bay. I have
7 never lived south of St. John's, Newfoundland,
8 Fredericton, New Brunswick, or Sault Ste. Marie,
9 Ontario. I have always been a northerner. I still
10 prefer to spend my vacations here.

11 During my childhood many of my summers
12 were spent in or around logging camps. I have had the
13 rare experience of witnessing boreal forest stands
14 develop from clearcutting through regeneration to early
15 maturity. Some of the stands that I witnessed being
16 clearcut 40 years ago have today been clearcut again
17 and regenerated a second time. Second rotation species
18 are the same and yields are higher than those in the
19 first rotation.

20 In my career I have also been privileged
21 to study detailed plots that were placed in stands at
22 origin after spacing in burn regeneration in 1921 and
23 clearcutting in 1921 and several years thereafter, and
24 have traced them - that's the plots - through to final
25 harvest. This experience has helped me acquire an

1 appreciation for stand development, the tremendous
2 growth potential and amazing resilience of the boreal
3 forest.

4 During my career I have also been
5 responsible for the timber management of a forest
6 similar in size of the combined limits of Abitibi-Price
7 at Thunder Bay. On that limit we practised even aged
8 management perpetuated by what is referred to in these
9 hearings as large area clearcutting.

10 Moose population densities then and today
11 on that limit are as high as those anywhere in the
12 world. Herds of woodland caribou roamed freely among
13 logging machinery on older cut-overs alike. These
14 caribou have risen through good management from
15 dangerously low population densities brought on by
16 overhunting and disease in the 1900s to a healthy, well
17 distributed population occupying almost all its former
18 range.

19 I am of course describing the forest
20 management areas of Abitibi-Price in the boreal forest
21 of Newfoundland during the era of my former
22 jurisdiction.

23 My experiences there are not directly
24 transferrable here, however, since moving to Ontario in
25 1978 I have spent a large portion of my time studying

1 the boreal forest of my new home. My hobbies are
2 related to my career. I am a naturalist, I paint water
3 colours, I photograph wildlife, canoe trip, hike, fish
4 and hunt and specializing doing all of those in what
5 current popular belief would tell you is a desert
6 wasteland; that is, on clearcuts of varying ages.

7 I find as much plant and wildlife species
8 diversity in this natural beauty in the clearcuts and
9 stands developing from clearcuts as I do in the natural
10 stands of northwestern Ontario.

11 I also believe that with the same
12 wildlife management practices and hunting controls as
13 those employed on the company's limits in Newfoundland,
14 wildlife densities similar to what has been achieved in
15 that province can be achieved on current habitat in
16 Ontario.

17 Mr. Saltarelli spoke eloquently of
18 Abitibi-Price's commitment to educating its foresters
19 through national and international travel,
20 participating in forestry organizations and projects,
21 and of the company's degree of integrity towards
22 managing its natural resources.

23 Everything he said for Iroquois Falls
24 applies equally well in Thunder Bay. My company has
25 sent me to eight of Canada's provinces, several of the

1 states of the United States of America and to New
2 Zealand to study their forestry programs. Few of these
3 trips have been for immediate advantage to the company.
4 They have been for my personal education and the
5 benefit I could pass on to others.

6 There are no more sincere
7 environmentalists found anywhere than those among
8 employees and especially the Professional Foresters of
9 Abitibi-Price and indeed the Ontario forest industry.

10 I can speak only for myself, but the
11 professional enthusiasm and integrity that I have
12 witnessed among my working companions suggests it also
13 applies to them.

14 I am an industrial forester and an
15 employee of Abitibi-Price because I feel industrial
16 forestry, and particularly Abitibi-Price, give me the
17 best opportunity to practise my profession within the
18 standards of my personal and professional ethics.

19 Madam Chairman, Mr. Martel, my company
20 has recently come upon difficult times. There have
21 been a variety of opinions offered about our future.

22 I have written here I stand, but I am
23 sitting before you believing we have a future in
24 Thunder Bay. That future is continuing dedication to
25 forest management.

1 I want to finish with a plea to this
2 Board. Madam Chair, Mr. Martel, you have been
3 entrusted with very great authority. You have the
4 power to make decisions that will change the direction
5 of timber management and the forest management so that
6 the forests of Ontario will be changed for the
7 remainder of the lives of my children and maybe for
8 their children.

9 There had been and will be a lot of
10 criticisms for the way things are done. There has been
11 a lot of request for change. A wise advisor tells me,
12 "You can only effectively make three points to an
13 audience." I can see you are nodding. Here are my
14 three points.

15 First, you probably have found that there
16 have been a number of areas where most of the parties
17 giving evidence before this Board agreed there should
18 be change. I believe you have an opportunity to very
19 explicitly define the areas where major change can and
20 should occur for the benefit of Ontario.

21 The second point is that there have been
22 very clearly described areas where there are
23 differences in a point of view and gaps in scientific
24 knowledge.

25 You have an opportunity to assist the

1 users of the forest to better understand the
2 intricacies involved in intervention into an ecosystem.
3 Without the urging and direction provided by this
4 Board, a number of key studies will not be undertaken.
5 As a forester I look to your firm direction for
6 assistance.

7 Finally, I sincerely believe it is
8 unnecessary and undesirable to try to resolve all the
9 issues placed before you. About one per cent of the
10 productive forest land base is harvested in any given
11 year. Ecosystems have been demonstrated to be
12 extremely resilient as well as complex. Progress in
13 managing forest ecosystems should be cautious,
14 deliberate and incremental.

15 Those are my points.

16 MADAM CHAIR: Thank you very much, Mr.
17 Squires.

18 Are there any questions from the parties?

19 Ms. Swenarchuk?

20 MS. SWENARCHUK: No.

21 MADAM CHAIR: Ms. Seaborn?

22 MS. SEABORN: No, thank you.

23 MADAM CHAIR: Mr. Cassidy?

24 MR. CASSIDY: No thanks.

25 MADAM CHAIR: Ms. Blastorah?

1 MS. BLASTORAH: No.

2 MR. MARTEL: Just run by me again your
3 second point, the areas of your conclusion.) Your
4 second point dealt with gaps in knowledge and I was not
5 quite sure what your final conclusion was, that we
6 should order certain studies, I think you said.

7 MR. SQUIRES: Yes. There have been lots
8 of gaps and I can't be specific right here at the
9 moment, but right through the transcripts - which I do
10 not read going to bed, but I have read - there have
11 been lots of phrases where various witnesses have
12 pointed out that there is a gap of knowledge, and
13 certainly I am sure that you have got the impression
14 that as one of the various parties we do not all agree
15 on a lot of the things because the information that is
16 out there does not lend to very clear definition of the
17 problem.

18 I think you had the opportunity to look
19 at the evidence that I presented to the Board and to
20 make some decisions on what information is needed and
21 where we should be focusing some our efforts, and I
22 have suggested in my statement that without your
23 recommendation some of that effort may not take place.

24 MADAM CHAIR: Thank you, Mr. Squires. We
25 appreciate you coming here today.

1 Is there anything -- would you like to
2 leave us a written copy of your submission or --

3 MR. SQUIRES: I can.

4 MADAM CHAIR: That would be a help.
5 Thank you very much.

6 MR. SQUIRES: Thank you.

7 MADAM CHAIR: The Board will now call on
8 Mr. Herman Van Duyn.

9 HERMAN VAN DUYN, Sworn

10 MADAM CHAIR: Whenever you are ready, Mr.
11 Van duyn.

12 MR. VAN DUYN: Okay. I will do the same
13 as Mr. Squires, I will move close to the mike.

14 I have two parts here, a brief to the
15 Environmental Assessment Board and a short history of
16 Hill's Greenhouses Ltd. representing a -- I might as
17 well read it officially.

18 Madam Chair, ladies and gentlemen of the
19 Board, I am speaking on behalf of the Thunder Bay Tree
20 Seedling Association and Hill's Greenhouses Ltd.

21 The Thunder Bay Tree Seedling Association
22 consists of six area nurseries in and around Thunder
23 Bay. The membership list is attached as Appendix A.
24 If you want me to read it I will.

25 We are six members in the region as A & R

1 Greenhouses workers, Creekside Nursery, Thunder Bay,
2 Ontario, Hill's Greenhouses Ltd., Murillo, Ontario,
3 Grundy's Nurseries, Pass Lake, Hodwitz Enterprises,
4 Thunder Bay, Jellien Nurseries, Armstrong.

5 MADAM CHAIR: Excuse me, Mr. Van Duyn,
6 will you be able to leave the Board with a copy of your
7 typed statement?

8 MR. VAN DUYN: Yeah.

9 MADAM CHAIR: Thank you.

10 MR. VAN DUYN: We are proud to be the
11 growers of the container stock seedlings planted in the
12 northcentral region for the last 10 years.

13 I am also proud to present to you some
14 evidence from the time when this Board commenced on May
15 10, 1988, in Thunder Bay. I would like to do this
16 right now.

17 This tree was planted as a seedling in
18 May, '88 when the Board commenced. The date you have
19 it is only centimetres, is an average tree that was
20 lifted from Abitibi-Price Ltd. and I do not know how
21 you are going to file it.

22 MR. MARTEL: What is it going to be like
23 by the time we get finished?

24 MADAM CHAIR: Thank you, Mr. Van Duyn.

25 MR. VANDUYN: For comparison I have one

1 seedling, the time when it went in the ground. It went
2 in the ground as 23-centimetre seedling and it is a
3 comparable seedling. I believe it is probably free to
4 grow now, but this is exactly planted the time when the
5 Board commenced. I thought to give it as evidence.
6 What you do with it --

7 MADAM CHAIR: I think we will put it in
8 our office.

9 MR. VAN DUYN: The history of the tree I
10 present to you today is attached Appendix B. I hand it
11 over right now.

12 The facts, in 1988 - when I started, when
13 the Board commenced in '88 the T.B.T.S.G.A. shipped
14 19.85-million trees. In '89, 18.5. In 1990 we shipped
15 23.8-million and in 1990 only 24-million seedlings is
16 contained in our stock.

17 Those are impressive numbers, but you
18 have to realize that the requirement in northcentral is
19 55-million and together with the bareroot seedlings
20 approximately 38-million trees are planted.

21 While mill closures and slowdowns must
22 have reduced the requirements, the combined effort by
23 government and companies should be made to reduce or
24 wipe out any existing gap between harvesting and
25 planting.

1 Political interference, budget
2 restraints, artificial planting caps, environmental
3 restrictions, strikes, etc., all play a role in this
4 and should be taken in account in order to create a
5 sustainable forest in Ontario.

6 Why planting you ask yourself? We as
7 growers believe that planting trees is one of the
8 surest ways to regenerate a forest. Hence the tree I
9 show to you that was planted in '88.

10 Other methods surely have replaced, but
11 the planted tree has time and again proven to be a fast
12 and reliable tool to regenerate a forest. Eighty per
13 cent of Swedish forest is hand planted.

14 As growers we are steady on the lookout
15 to improve the quality of seedlings as the survival
16 rates from the plantation of the last few years will
17 tell you.

18 Meetings between members, MNR and
19 industry are on an ongoing basis. I am also proud to
20 point out to you a research cooperative between
21 Lakehead University and the T.B.T.S.G.A., Appendix C.
22 Also growing directly for an FMA holder has a benefit
23 in improved seedling quality. The field foresters are
24 a demanding lot.

25 Communication between various parties has

1 been a necessity to come to a good seedling quality.
2 However, one of the concerns we have as growers is the
3 existing procurement policy in Ontario. It simply
4 means the lowest price goes. This procurement policy
5 is binding for the MNR.

6 While in the past, three seedling growers
7 had five and three year contracts, current proposals for
8 the OTSGA, Ontario Tree Seedling Growers Association,
9 made by the MNR calls for open tenders on tree seedling
10 producing contracts on an annual basis.

11 Growers not currently signed by FMA
12 holders will not be able to afford big investments and
13 new technology to improve seedling quality. In my view
14 it is ridiculous not to have funding set aside for
15 long-term contracts for such a vital part of a forest
16 regeneration industry.

17 One of our suggestions for this problem
18 is to allow block funding so that long-term goals and
19 contracts can be implemented by FMA holders and MNR
20 alike. The FMAs are working well and if improvements
21 are needed, let's do this.

22 What we need, Madam Chair, ladies and
23 gentlemen of the Board, is a strong comprehensive
24 forestry policy for Ontario, that's what we need that
25 benefits all users of Ontario's forests. The

1 northcentral growers of containerized tree seedlings
2 are a small group but a very big link in our forestry
3 environmental framework. This is the first part of the
4 submission.

5 I am the president of the Thunder Bay Tree
6 Seedling Growers Association and also president of
7 Hill's Greenhouses Limited and vice-president of the
8 Ontario Tree Seedling Growers Association.

9 I will give you a short history of Hill's
10 Greenhouses Ltd. about the impact that the
11 reforestation had on our business.

12 Hill's Greenhouses Ltd. is located 15 km
13 west of Thunder Bay. Hill's is one of the oldest
14 established greenhouses in northwest Ontario. It
15 consists now of approximately two acres of greenhouses
16 and 45 acres of land.

17 The business was taken over from the
18 Hill's in '71 by the Vanduyens and vastly expanded in
19 size. Year round growing of flowers and plants for the
20 Lakehead and northwestern Ontario marketplace took
21 place.

22 In '78 we got approached by Abitibi-Price
23 to try out a few trees. (15,000) In '79 we tried again
24 some trees for Abitibi freehold. (350,000)

25 In 1980 a big expansion took place,

1 funding of 50 per cent of capital costs for nine
2 greenhouses by the MNR (Bild program) and a hundred per
3 cent for two greenhouses by Abitibi-Price for Freehold
4 used was received. Each greenhouse produced 300,000
5 trees.

6 Since then, between 1980 and 1990 a total
7 of 50-million trees were produced by Hill's
8 Greenhouses. The production target for 1991/92
9 delivery is close to 10-million trees.

10 Seven full-time and up to 60 part-time
11 workers at peak periods are now employed at our
12 business. 80 per cent of our so-called part-timers are
13 women, they have worked for me for 10 years already
14 and they always come back, bringing much needed dollars
15 into our community.

16 We are steadily improving our operation
17 to update the quality of the trees.

18 In 1983 a building for seeding and
19 storage materials was built. Investment Hill's,
20 \$250,000.

21 In '84 natural gas came, which meant
22 adding more furnaces so that two crops out of one
23 greenhouse could be produced and insulation and
24 modification of existing building and furnaces was
25 done, another investment of \$155,000.

1 Also an extra holding area was built at
2 this time, an investment of \$100,000.

3 In '86 the front portion of our so-called
4 flowerside and electrical was updated, another cost of
5 \$140,000.

6 In 1990 our latest addition was built in
7 the shape of a cold storage facility. This cooler can
8 hold approximately 5-million trees packed in boxes and
9 frozen at minus 2 celcius until planting time commence.
10 Investment of about \$500,000.

11 For this project and \$50,000 forgiveable
12 loan from the NODC and \$300,000 loan was received.

13 As you can see, to stay in the market and
14 produce quality seedlings a substantial investment has
15 to be made, hence, my remark earlier on about long-term
16 contracts and stabilization for our industry.

17 It is my hope that this Board will make
18 the proper recommendations to enable us to do what we
19 do best, to grow quality tree seedlings for Ontario's
20 forests.

21 Don't shy away from any questions.

22 MADAM CHAIR: Thank you very much, Mr.
23 Vanduyn.

24 Are there any questions for Mr. Vanduyn?
25 Ms. Seaborn?

1 MS. SEABORN No, thank you, Madam Chair.

2 MADAM CHAIR: Mr. Cassidy?

3 Ms. Blastorah?

4 MS. BLASTORAH: No, thank you, Madam
5 Chair.

6 MADAM CHAIR: Thank you very much, Mr.
7 Vanduyn.

8 And could we have a copy of your written
9 presentation.

10 MR. VANDUYN: Of course and the Board is
11 also welcome to visit our greenhouses. We still sell
12 flowers and plants from our facility commercially. We
13 are open from 9:00 to 5:00 but I really like to show
14 you our facilities, if you have the time, you are
15 always welcome.

16 MADAM CHAIR: Thank you very much for the
17 invitation.

18 The last person who is scheduled today to
19 talk to the Board is Mr. Bob Fedorchuk.

20 BOB FEDORCHUK, Sworn

21 MR. FEDORCHUK: Good afternoon. I'm
22 happy to be here in Thunder Bay. My name is Bob
23 Fedorchuk and I'm a professional forester in Ontario
24 and I have been a professional forester in British
25 Columbia.

1 It is with pleasure that I come to speak
2 to you and I'm glad you're here in Thunder Bay and I
3 know you've been here before and your task has been
4 going on for many years, and I have only followed it
5 from a very great distance actually, but I can
6 understand the importance of your work to the forests
7 of Ontario and to the people of Ontario.

8 And being a forester myself I have
9 thought considerably about what you call the
10 undertaking, being forest management in the Province of
11 Ontario. And I have lots to say about forest
12 management in Ontario. Mainly, you know, in synopsis,
13 to say that it is not very good, is my professional
14 opinion. And that might be, you know, the same thing
15 in other provinces, and certainly we as foresters try
16 to make it better but, still, I would say that I don't
17 think it's very good, and part of the problem I think
18 is the large sizes of clearcuts. I think they are
19 unacceptable to the people of the province to whom the
20 resource belongs and there's good doubt being raised
21 about, you know, the consequences of some of these
22 large clearcuts.

23 It may be economically viable to have
24 them, and I think that has been the case in the past,
25 but I think it's equally viable to institute some

1 smaller clearcuts and change the way that we manage
2 those forests that would be more acceptable to the
3 people of the province, if they wish it that way.

4 I have other ideas about the integration
5 of forest management with other resource management,
6 and I also think that this is a new kind of way to
7 think for foresters and I think it's a good idea.

8 Myself, you know, working out in the bush
9 I've come across -- maybe I can give you an example. I
10 was doing some spacing contracts and the idea is to cut
11 away all the brush from the planted trees, and when
12 they say all the brush, they mean all the brush. You
13 know, you run into these Ministry guys, they want, you
14 know, everything -- every stick cut no matter what.

15 And so, you know, you're in this area and
16 there's jack pine and there's brush growing around, but
17 you might run across maybe 15 or 20 mountain ash trees
18 in the whole, you know, 20 acres that you're doing and
19 according to the contract they should be cut, but of
20 course these berries are food for particular kinds of
21 animals in that plantation, and also because there's so
22 few of them, they're important food for those animals.

23 And so as a forester, and as my
24 professional colleague spoke earlier, as a naturalist
25 one would want to maintain some of these things. But,

1 you know, the iron hand of the law sometimes comes down
2 and, you know, the Ministry people will say, cut
3 everything, and if you don't cut it you're going to be
4 in infraction in the contract and it will mean that
5 your plot isn't acceptable, even though you're doing
6 something which you think is good and natural and
7 beneficial to the creatures and to the integrated
8 living biosphere at that particular place.

9 So I realize that the Ministry has a big
10 province to manage, but the heart of the matter, I
11 think, happens in the square metres of land that you
12 cover in an intimate sense and people, as foresters and
13 as hunters and as fishermen and however they experience
14 nature out there, they experience it in very close
15 confines and the quality that they receive from that
16 environment is not perceived in those timber management
17 plans that are written and in all the procedures and
18 all the policies that could ever be written.

19 So I think what we need here is some kind
20 of a person-to-person relationship with the people and
21 with the environment also so that there may be room for
22 greater harmonization and understanding and achieving
23 more multiple goals out of our forest than the straight
24 linear ones that, you know, the maximization of cut or
25 mean annual increment or something like that.

1 I think it's taught in university and all
2 that, but it doesn't have a reality associated to it,
3 which is the reality of the actual living biosphere.

4 On another matter about DCLs, district
5 cutting licences. It's my understanding that these are
6 only open to historic operators.

7 Now, that of course closes the door to
8 anybody else who wants to go out there and get a timber
9 licence and practice a different kind of forestry,
10 perhaps like community forests or something of that
11 nature, or if there's Crown land next to your own
12 property and you would like to log some trees on it
13 there because they're overmature and you can do some
14 nice selective logging and improve the bush around your
15 property, well, you won't be allowed to do that because
16 you're not a historic operator, and there's no way that
17 the Ministry could allocate you any rights to cut that
18 timber, at least that is my understanding.

19 So that I don't think that is, you know,
20 a reasonable way to proceed in terms of the Ministry.
21 I think it reduces the opportunity for innovation
22 and -- for innovation and for people to take
23 stewardship over their resource in their immediate
24 backyards.

25 The third question that came to my mind

1 about the undertaking is the homogeneity which the MNR
2 seeks to achieve in managing the forests of Ontario, of
3 timber management unit has to be managed according to,
4 you know, a framework and the plan written according to
5 that framework and they're quite standardized.

6 And this I think also precludes
7 innovation, because one expects to achieve the same
8 kind of, at least the government expects, to achieve
9 the same kind of output from the forests at Gogama as
10 they do from the one outside of Raith here, you see,
11 but the place like in Gogama, it has different features
12 and it's a remote place and it could be a place where
13 industrial forestry is practised, but on another unit
14 that is close to a city or, for example, close to
15 Sudbury or something like that, one might want to
16 practise an entirely different kind of forest
17 management there that does not have timber management
18 as a factor to be maximized in the management plan or
19 that has the production of timber to be maximized in
20 any way at all.

21 So that some of these units, I don't
22 think, should have the objective of having timber
23 maximized on them, but other objectives of management
24 can have equal place or even supercede the quota.

25 The third -- or the final object I would

1 just like to raise is that the Ministry too, I think,
2 must have some kind of sympathy with industrial
3 operations and business operations as well. The people
4 who let contracts and the ones that supervise them
5 sometimes are remote from that reality, from the
6 reality of running a business and paying people and
7 accomplishing different kind of works.

8 And, you know, very often some things are
9 petty and they become the break all or end all for the
10 people doing the work, you know, and there doesn't seem
11 to be much leeway or understanding on the part of the
12 Ministry about that other reality which is, you know,
13 the kind of financial and economic reality of certain
14 jobs out in the bush.

15 So in conclusion then, you know, I would
16 just like to say that I don't think forest management
17 is very good in Ontario, but I hope it would improve.
18 I think, you know, setting a minimum -- a maximize size
19 on clearcuts is a good idea. You know, I would -- you
20 can pick a number anywhere you want, but you know 80
21 hectares might be a good one, and more flexibility in
22 forest management plans and get away from the
23 homogeneity of the whole province in trying to manage
24 the forest all in one way and open it up so that there
25 will be a lot more innovation in our forests.

1 - And I kind of agree with my colleague too
2 about the staying power of the forest ecosystems. For
3 example, the boreal forest, even though we have cut
4 huge tracts of the boreal forest, it does come up and
5 it does regenerate and it might not regenerate to
6 anything that we recognize or that was there before,
7 but the power of those plants to dominate those sites
8 are their only power. I mean, you know, for man to
9 start controlling those, it's a very difficult thing to
10 do, you know, you have to spray herbicides or you have
11 to do scarification and so on.

12 So that their regenerative power that is
13 there naturally is quite formiddable and I think a
14 forester is wise if he tries to work with that system
15 and not try to be very drastic in trying to change the
16 whole system just in order to produce particular trees
17 at a particular time.

18 The other thing is that, you know, in
19 long terms ahead that we really can't tell what we're
20 going to be harvesting and when because quite simply
21 our planning isn't all that good, and then our
22 regeneration isn't all that good either.

23 So thank you very much.

24 MADAM CHAIR: Thank you, Mr. Fedorchuk.

25 Are there any questions?

1 Mr. Cassidy?

2 MR. CASSIDY: No, thank you, Madam

3 Chairman.

4 MADAM CHAIR: Ms. Seaborn?

5 MS. SEABORN No, thank you, Madam Chair.

6 MADAM CHAIR: Ms. Blastorah?

7 MS. BLASTORAH: No, thank you.

8 MADAM CHAIR: Mr. Fedorchuk, are you

9 self-employed?

10 MR. FEDORCHUK: Right now I'm unemployed.

11 MADAM CHAIR: And you are a forester by
12 background?

13 MR. FEDORCHUK: That's right. I
14 graduated from Lakehead University in 1978.

15 MADAM CHAIR: All right. Well, the Board
16 appreciates you coming here today and thank you very
17 much.

18 MR. FEDORCHUK: Thank you.

19 MADAM CHAIR: Is there anyone in the
20 audience who wishes to speak to the Board before we
21 rise for our dinner break.

22 (no response)

23 All right. We will adjourn for now and
24 be back at seven o'clock.

25 ---On recessing at 5:05 p.m.

1 ---On resuming at 7:00 p.m.

2 MADAM CHAIR: Good evening, ladies and
3 gentlemen, and welcome to the Timber Management
4 Hearing.

5 Because we held the hearing in Thunder
6 Bay for most of two years, I feel like we do not have
7 to go through much of an explanation of who we are and
8 what we are doing here. But I see there are some new
9 faces in the audience this evening and so let me
10 introduce the panel and some of the people in the room
11 and explain the process of hearing for you tonight.

12 We are two members of the Environmental
13 Assessment Board appointed to hear the Timber
14 Management Application by the Ministry of Natural
15 Resources. We started in May of 1988. We heard the
16 proponent's case, the proponent being the Ministry of
17 Natural Resources, here in Thunder Bay and in early
18 1990 we moved back to Toronto to hear more evidence and
19 we have also visited many towns and heard evidence
20 throughout Northern Ontario.

21 My name is Anne Koven, and Mr. Martel,
22 you probably need no introduction to Mr. Martel. If
23 you live in the north you have heard of him for many
24 years as a member of the Ontario legislature for
25 Sudbury.

1 The procedure tonight is a very simple
2 one. Anyone who wants to talk to the Board can do so.
3 We have scheduled this evening five presentations and
4 if there is anyone else here tonight who has not made
5 an appointment or has their name on my list, they are
6 certainly free to do so and they can speak to Mr.
7 Daniel Pascoe who is standing up.

8 We will ask you to come forward and be
9 sworn in and you will sit at the table in front of us
10 and when you are finished talking to the Board we might
11 have some questions to ask you and people in the
12 audience are free to ask questions of any of the
13 presenters.

14 And there are also some parties to the
15 hearing represented by counsel tonight and I will
16 introduce them to you in the event that they wish to
17 ask questions.

18 Mr. Cassidy represents the Ontario Forest
19 Industries Association, Ms. Seaborn represents the
20 Ministry of the Environment at this hearing, and Ms.
21 Blastorah represents the Ministry of Natural Resources.

22 If you have any questions that you want
23 to ask about this process, please feel free to do so.

24 The first person we will be calling on
25 this evening is Mayor Jack Masters.

1 Good evening, Your Worship.

2 MAYOR MASTERS: Good evening.

3 MADAM CHAIR: We will make Mr. Master's
4 presentation Exhibit 1903.

5 ---EXHIBIT NO. 1903: Written presentation by Mayor
6 Jack Masters.

7 MADAM CHAIR: Please go ahead.

8 MAYOR MASTERS: Thank you very much.

9 I must confess this is a new process for
10 me, but I know it has been going on for some time and I
11 do welcome you back to Thunder Bay.

12 I do not envy you your task. I know that
13 to date much of it has been very legalistic, as it must
14 be, and I salute the fact that you have gone to this
15 format to, I would hope, help to bring a perspective to
16 your deliberations and I do not, as I say, envy you
17 your job because there is nothing more complex than our
18 forests and the many uses we have of our forests and
19 the importance of the forests to our environment.

20 While some of what I say tonight will
21 necessarily reflect upon the importance of the forest
22 industry in general to our economic well-being not only
23 here in Thunder Bay, Northern Ontario, but to Canada, I
24 do not want that to be perceived to be that that is the
25 total reason for my being here.

1 I thought it entirely appropriate that as
2 Mayor of such a large city and one that is so dependent
3 upon the resource based industries that we should make
4 comment, but I hope that you will find that there is a
5 balance to what we have to say because there is always
6 the concern in Northern Ontario that perhaps when we
7 are viewed from afar by people who may not be
8 necessarily in tune with the realities of how we
9 conduct ourselves in this part of the world that
10 different conclusions can be drawn.

11 I suppose it's a bit akin to the same
12 concern that Southern Ontario as an example, and I'm
13 certainly not at bat for Southern Ontario, nor do I
14 envy them, I welcome them as part of our province, but
15 it's akin to the concern that might be felt if all of a
16 sudden we were to go from Northern Ontario and make a
17 rash comment without truly understanding what is
18 happening on the amount of farmland, for better or
19 worse, that has been plowed under in the name of
20 development.

21 So I will now turn to my prepared text,
22 if I may, which is mercifully brief.

23 I believe I can safely assume that you
24 will be inundated with statistics and technical
25 information which will all contribute to your finding

1 and your recommendations.

2 The specific data I propose to bring to
3 your attention involves the human dimension expressed
4 in jobs, industry, and community survival. I am afraid
5 we are becoming a little calloused in these matters.
6 Job loss is what happens to someone else and government
7 programs will help our community seems to be a thought
8 with some people within our country today.

9 Although we are achieving some success in
10 diversification of our industrial base, Thunder Bay
11 remains a resource based community. From the beginning
12 of this century our forest industries have contributed
13 to our prosperity and we trust they will continue to
14 keep our economy vibrant.

15 As these industries are highly cyclical,
16 particularly in the pulp, paper and sawmill sectors, we
17 have learned to live with the lows and tend to enjoy
18 the highs.

19 Today, however, the industry in Thunder
20 Bay is facing unprecedented structural change and our
21 very ability to survive is being questioned. Demand
22 for recycling and pollution abatement, the continuing
23 high Canadian dollar, production costs and efficiencies
24 of our older mills all contribute to an uncertain
25 future in this important sector.

1 At the same time we may have
2 opportunities to build in our strengths. Our major
3 pulp and paper mill anticipated these events and has
4 successfully expanded and modernized its operation to
5 world class standards.

6 We have a tremendous asset in our aspen
7 forests, now usable in pulp production under the
8 chemi-thermal-mechanical pulp process, CTMP. This
9 fibre in combination with the traditional
10 spruce-pine-fir fibre provide a renewable resource for
11 the next century and we always have viewed our forests
12 a renewable force. Something that is to be harvested.
13 It is to be protected and it is to be used in a
14 balanced way by all sectors of our population.

15 Located on the southern flank of this
16 boreal forest and as the largest single community
17 between Huntsville and Winnipeg, Thunder Bay is
18 strategically located to benefit from our forest
19 resources.

20 If you stand in Thunder Bay, face north
21 and mentally draw a 60 degree arc, you may realize
22 there are only small pockets of human settlements. Yet
23 to the south we are only 45 miles north of the
24 U.S./Canada border.

25 We are therefore a frontier community,

1 but also a regional centre with a strong industrial,
2 commercial, transportation, and cultural base.

3 Like Finland, we are a people with strong
4 links to the forest. Our recreation for the past 80
5 years has been forest based. Camping and hiking,
6 skiing, fishing, hunting and trapping. Our hobbies
7 include mineral prospecting, bird watching, exploration
8 and nature study.

9 Although some environmentalists are
10 suddenly discovering the forest, they have been part of
11 our lifestyle for most of this century, and during most
12 of this period we have co-existed comfortably with the
13 forest industries in and surrounding our communities.

14 Until the 1940-50 period, the timber
15 resource was considered limitless at prevailing rates
16 of consumption. During the 1950s, however, the need to
17 renew and conserve our resources was recognized.
18 Export of log rafts across Lake Superior to American
19 mills was prohibited and silvi-culture was introduced.

20 At present we are confident that through
21 efficient resource management, both by the Ministry of
22 Natural Resources and our forest industries, our
23 forests are a truly renewable resource that will
24 continue to contribute to our economy and to that of
25 Ontario.

1 We believe, and have demonstrated for
2 years, that community interests and forest harvesting
3 activities are compatible.

4 We believe that the forest industries in
5 Ontario which provide a total of 212,000 direct and
6 indirect jobs and over 2.2 billion dollars in wages
7 should be assured an affordable, predictable and
8 continuous supply of wood fibre.

9 Present commitments by government and
10 industry in silvi-cultural programs contribute to this
11 objective. We believe that those communities closest
12 to the forest resources should have the strongest voice
13 in utilization of forest areas as it may affect their
14 culture or recreation and lifestyle.

15 We believe that the present assignment of
16 Crown lands to park use is adequate for the foreseeable
17 future, at present and predicted rates of growth.

18 We believe that forest cover in Northern
19 Ontario has not deteriorated and forest harvesting has
20 not contributed to the greenhouse effect of global
21 warming.

22 We believe that serious environmentalists
23 should support stronger programs to prevent and
24 suppress forest fires. If, as proposed, for instance
25 every boy scout in Canada planted one tree, the total

1 would be a fraction of the trees lost in any major fire
2 every year.

3 Finally, we believe that representatives
4 of all groups situated outside the areas of the boreal
5 forests and presenting submissions to the hearings in
6 Toronto, should be as to visit the north. They will be
7 more than welcome here.

8 In conclusion, on behalf of the City of
9 Thunder Bay and our Economic Development Corporation, I
10 thank you for bringing the hearings back to Thunder Bay
11 and giving us all an opportunity to participate and
12 contribute to the decision making process, and that
13 decision making process is extremely important. You
14 are hearing many invoices as you must and should.

15 I think that it should be remembered that
16 in the last 10 years we have learned a great deal about
17 our environment. We who live here, even though we feel
18 at times we have done a good job of protecting the
19 resource, we too have been guilty of misuse and overuse
20 and all the rest of it. But I think it is moving in
21 the right direction and I hope that a few comments that
22 I have made will be of some value in helping to bring a
23 perspective to your deliberations and I thank you for
24 allowing me this time.

25 MADAM CHAIR: Thank you, Mayor Masters.

1 Attached to the Mayor's written remarks
2 are four pages of statistical information and those are
3 available to the parties from Mr. Pascoe.

4 Are there any questions for His Worship?

5 (no response)

6 MAYOR MASTERS: Thank you very much.

7 MADAM CHAIR: Thank you very much.

8 The Board will now call on Clement Kent.

9 Good evening, Mr. Kent.

10 CLEMENT KENT, Sworn

11 MADAM CHAIR: We will make Mr. Kent's
12 written presentation Exhibit 1904.

13 ---EXHIBIT NO. 1904: Written presentation by Clement
14 Kent.

15 MADAM CHAIR: Please go ahead.

16 MR. KENT: Like the Mayor, I find this a
17 new experience and I thank you for the opportunity to
18 speak to you.

19 I guess I am here to give one person's
20 view from an operational standpoint of the way in which
21 the Ontario Ministry of Natural Resources carries out
22 their responsibility in an environmental area in timber
23 harvesting. A procedure which, in my view, leaves a
24 great deal to be desired in the one small case I have
25 to report to you.

1 The reason that I feel that this
2 procedure leaves a lot to be desired is that it fails
3 to achieve one of the stated objectives of involving
4 public input and participation in the process and I
5 think shows that licences to cut are sometimes granted
6 in considerable ignorance of local environmental
7 conditions.

8 The specific case in point concerns a
9 standard quarter section which is in Pearson Township
10 and is entirely surrounded by privately held sections,
11 so there is the one Crown lot entirely surrounded by
12 privately held land.

13 Now, in addition to that, the Crown lot
14 is traversed by a well maintained road which goes
15 through that lot for probably three quarters of a mile
16 and, in total, runs about two miles from Highway 608
17 near the Village of South Gillies.

18 This road has become a residential road
19 having now five permanently occupied residences and one
20 other under construction. It seems to me that in a
21 situation like that there should be particular
22 sensitivity on the part of the MNR to the assignment of
23 cutting licences - as they did in the case of this
24 particular lot, assigned a licence to clearcut - to the
25 people who are going to be affected by the result of

1 the cutting.

2 The point that -- the intention of the
3 Ministry, and they sent me a glossy brochure describing
4 their wish to involve the public in the process. That
5 this is ineffective, I think, is illustrated by the
6 fact that none of us resident along this particular
7 road which is called Chimo Road was aware of the
8 intention to cut this lot until the surveyors tape
9 appeared for the guidance of the licensee to do the
10 cutting.

11 The reason for that is that the MNR's
12 published notices are very non-specific and may simply
13 list that Pearson Township is available for cutting in
14 the next coming five years. I think this is hardly
15 likely to be scene by the average resident of a
16 residential road of the type I am speaking and, in this
17 case, was not noticed by anyone.

18 Now, because we had not noticed it prior
19 to that time we hadn't had a chance to apply for the
20 Ministry to participate in the planning process until
21 well after the licences had been granted.

22 Attached to my presentation is an
23 exchange of letters with the Ministry. There were also
24 some telephone calls regarding this particular
25 situation.

1 The Ministry responded in the last line,
2 which is dated June 28th, that there was no compelling
3 reason to delay the cut, a request that I had made in
4 the first letter that I wrote to the Ministry, and they
5 offered the opportunity to walk over the cut area so
6 that they could explain to me why their decision was
7 the correct decision to be made.

8 I considered that that offer was not
9 acceptable because of the Ministry's refusal to engage
10 in any delays so that the residents of Chimo Road would
11 have a chance to look into the reasons the Ministry was
12 having this lot cut and to forward our own thoughts on
13 the matter to them for consideration but, in a sense,
14 that was -- in a real sense that was rejected by the
15 Ministry at that point.

16 One of the points that they have made
17 several times is that it is impossible to inform all
18 affected persons before a cut of this nature is to take
19 place. However, I don't think that stands up,
20 particularly in the case where there is a residential
21 situation involved, it's more or less as though the
22 city were to come to your house and say: We intend to
23 cut all the trees in the park next door, or if the city
24 were to -- I guess the better analogy, if the city were
25 to cut those trees without notifying any of the local

1 adjacent residents of that fact.

2 It would be very simple in such a
3 situation. After a licence had been applied for to cut
4 a particular area to post a sign, and on a
5 well-travelled road such as this one that certainly
6 would inform the residents and anyone who might be
7 affected of the intention to go ahead with that and
8 would be, again, adequate notice.

9 On the point of the lack of knowledge by
10 the MNR of the local environment conditions, I point
11 out several things. First, that they appear to have no
12 knowledge of the residential status that had developed
13 along that particular road when the licence was issued,
14 despite the fact if they had come and looked they would
15 have seen the residences along the road. This
16 convinces me that there was no inspection by the MNR of
17 the area before the licence was granted. In fact, in
18 one of the first conversations I was asked to provide a
19 map of the residences on Chimo Road, which I did.

20 The first map that they furnished of the
21 area to be cut, which listed permissible area to cut
22 and those which were "expected not to be cut" was based
23 entirely on aerial photographs and had to be
24 substantially modified after the cut began because they
25 had failed to consider the slopes rather than simply

1 the hill tops that the aerial photographs had shown.

2 This reduced the amount of cut, as I
3 understand it, very much but it is only an accident
4 that that is not now to be a clearcut of the entire
5 forest section because of these particular slopes.

6 The same initial map that was furnished
7 to me by the Ministry contained very serious errors on
8 the forest composition of that particular area and had
9 not been corrected for many years. I have some
10 information on that under point (d).

11 But point (d) has I think several parts,
12 one -- and they all bear on particular areas in which
13 the Ministry lacked the information that should have
14 been present before granting a licence to cut.

15 First, there was no economic analysis of
16 the cut. Now, as of a little while ago I walked the
17 area that had been cut so far, which consists of most
18 of what had been allotted for 1991 to the licensee and
19 I tabulate some of the results that can be scene there.
20 There were about 194 cords of poplar and about 75 cords
21 of conifer that had been cut on the 11th of August.

22 At current prices at the mills the value
23 of these timbers to the licensee are about \$13,000 and
24 \$6,500 respectively, and the stumpage fees to the
25 Ministry about 880 and 890. This is part of the

1 economic analysis I think that should have been done.

2 If the composition of the timber cut so
3 far is indeed representative of all of the harvestable
4 timber on that quarter section, then it would seem to
5 be 70 per cent poplar, 30 per cent balsam fir; whereas
6 the MNR's map indicated 50 per cent jack pine, 40 per
7 cent poplar and 10 per cent balsam fir.

8 A recent statement made by a
9 representative of the MNR was that there was not
10 substantially more timber to be harvested than had
11 already been harvested and that most of it was poplar.

12 Poplar, incidentally returns a very
13 stumpage fee to the province and it would seem to me
14 that it is generous to estimate that there will be a
15 return of 3,000 to \$4,000 in stumpage fees to the
16 province from that particular cut, which seems to be
17 precious little in these days and times for financing
18 reforestation.

19 So I believe that indeed, as has been
20 admitted by the MNR, there was no economic analysis of
21 this particular cut, and I think there are some very
22 questionable parts to the economic analysis when we try
23 to do it.

24 The second major area that concerns me is
25 the lack of any sort of hydrological analysis before

1 the cut. I have been told that they expect the
2 precipitation that falls after the clearing -- after
3 the lot had been cleared, to be absorbed by the forest
4 floor. But, just as they missed the slope of the land
5 when they estimated the total timber to be harvested,
6 the slope will play an important role in this question
7 of whether the precipitation is absorbed or not. The
8 fact that it is totally cleared in the area that has
9 been cut and that the soil has been compacted by the
10 harvesting machinery, may negate this particular
11 expectation of the Ministry.

12 Also, there doesn't seem to be any
13 consideration of what might happen if there is an
14 exceptional rainfall during the time that the area is
15 bare. So I believe there is no answer in this
16 environment area.

17 One further point. I know of an
18 applicant who applied to cut that particular lot four
19 years ago and was denied permission. He wished to do a
20 selective cut at that time, was denied permission and
21 was told at that time that no harvesting would be
22 permitted for 15 years. So suddenly there seems to be
23 a great revision of the opinion as to when the timber
24 was harvestable and, again, I believe this was done
25 without any inspection on the site.

1 The MNR has also made the point to me and
2 to others that harvesting at this time was necessary in
3 part because of damage caused to conifers by the spruce
4 budworm. Now, there doesn't appear to be a
5 preponderance of conifers on that land and, in the
6 opinion of a professional forester who is sitting
7 behind me, walking over that area there was very little
8 damage by spruce budworm to balsam fir on that
9 particular property, certainly nothing that would be of
10 imminent threat to the balsam fir or even a near-term
11 threat.

12 So in sum, I would say that, in my view,
13 the MNR has granted a licence to harvest this area in
14 haste and in ignorance of any of the local
15 environmental facts and that they have a demonstrably
16 ineffective effort at public involvement which they
17 advertise, but which does not seem to work, and now
18 from the efforts that we have made evidences no
19 willingness to grant an opportunity for participation
20 of a decision.

21 Now, this is a very small situation, but
22 I think most small situations are important to someone
23 and, in this case, to the residents of Chimo Road and
24 we will live with the MNR's decision. There is no way
25 to reverse it now that most of the cutting has been

1 done, it will have an effect on our aesthetic values,
2 on our property values, and there may be unanticipated
3 environmental effects because I don't think they have
4 done their environmental job.

5 And I can only express the hope that
6 there may be some changes made to MNR procedures to
7 prevent similar situations developing in other
8 residential districts.

9 Thank you.

10 MADAM CHAIR: Thank you very much, Mr.
11 Kent.

12 Will there be any questions from the
13 parties to Mr. Kent? Mr. Cassidy?

14 MR. CASSIDY: No, Madam Chair.

15 MADAM CHAIR: Ms. Seaborn?

16 MS. SEABORN: No, thank you, Madam Chair.

17 MADAM CHAIR: Ms. Blastorah?

18 MS. BLASTORAH: Yes, I have a few
19 questions, Mrs. Koven.

20 Mr. Kent, just to put this in
21 perspective, I would just like to have you confirm that
22 the area -- my information is that the total extent of
23 the cut is approximately six to eight hectares?

24 MR. KENT: I don't think that's correct.
25 The 1991 cut was to be 15 hectares and we are not clear

1 as to what the additional cut, which had been
2 designated for the years '92 through '96 I believe,
3 will be, we only have the telephone word of the
4 Ministry representative that there will not be
5 substantially more timber cut, but I don't know what
6 that means.

7 MS. BLASTORAH: Well, actually maybe I
8 should clarify my question. It's my information that
9 to date approximately eight hectares has been cut.

10 MR. KENT: That may well be, but it's of
11 the 15 designated for cutting in '91.

12 MS. BLASTORAH: And you just indicated I
13 think that the Ministry had advised you that there
14 would probably be no more substantial cutting in that
15 area; is that correct?

16 MR. KENT: I've simply stated what they
17 have said that the amount of timber left to harvest is
18 not substantial.

19 MS. BLASTORAH: Right. So it won't be
20 substantially more than that eight hectares, based on
21 what you've been told?

22 MR. KENT: However, I would comment that
23 that must be regarded as an accident because the
24 licence was given to clearcut the entire 65 hectares or
25 whatever the quarter section is.

1 MS. BLASTORAH: You came to the notice
2 question, I think, during your presentation and you
3 indicated I think that newspaper notices had been
4 published but you didn't feel that that was adequate
5 under the circumstances because it wasn't specifically
6 indicating that that block would be cut. Did I
7 understand you correctly?

8 MR. KENT: That's correct.

9 MS. BLASTORAH: Are you aware that in the
10 Ministry's process the initial notice that goes out is
11 given for involvement in process prior to specific
12 areas or specific decisions being made as to where cuts
13 will be made?

14 MR. KENT: I'm sure that is true.

15 MS. BLASTORAH: So you'd agree that a
16 notice at that stage could not indicate that that block
17 would be cut because that decision had not yet been
18 made?

19 MR. KENT: Yes, I'm sure that at that
20 particular point there had been no application to cut
21 that particular block, but I think that simply
22 reinforces the point that when an application had been
23 received to cut a particular area that area could then
24 be posted and an appropriate delay could be assigned
25 before granting the licence to allow local residents to

1 inform the Ministry of their point of view.

2 MS. BLASTORAH: I take it from your
3 comments that you did not have direct involvement in
4 the timber management planning process for this timber
5 management plan that governs --

6 MR. KENT: No, I didn't. That's correct.

7 MS. BLASTORAH: I see.

8 MR. MARTEL: Can I stop there.

9 MS. BLASTORAH: Certainly.

10 MR. MARTEL: I'm getting a little -- on
11 two items I'm already a little somewhat confused.

12 I just heard you, Ms. Blastorah, say the
13 Ministry is proposing maybe 15 hectares, I hear the
14 witness telling us that in fact the cutting licence is
15 to cut 65 hectares.

16 Which is the figure that we're talking
17 about that could be potentially clearcut; is it 15
18 hectares or is it 65 hectares? I simply don't know
19 because I'm getting...

20 The second point, I might as well present
21 it as well, is: Again, I am a bit confused because the
22 witness has said he'd like to have had a notice prior
23 to the cut starting that, in fact, in some work
24 schedule I presume there was going to be an opportunity
25 usually to have some input prior to that.

1 Now, my understanding of what you've said
2 is that there was a notice given that somewhere down
3 the line a cut was going to occur. Was there a
4 secondary notice as to the time the cut was going to
5 occur and people would be given an opportunity to, at
6 least, have some input before the cutting occurred?

7 Again, I'm sorry, but I'm getting two
8 different stories and neither one of them seem to be
9 coming anywhere close together as we move from one area
10 to the next area, and I'm not clear on either issue of
11 where we're going.

12 MR. KENT: May I address the first point?

13 MR. MARTEL: Yes.

14 MR. KENT: Okay. Attached to my
15 submission is a letter from the Ministry which has as
16 an attachment a map of the particular plot of land and
17 on that some small area -- the total plot, as I
18 understand it, is about 65 hectares.

19 On that, some small areas are listed as,
20 yes, not expected to be cut. These, however, are
21 simply the hilltops. This is a fairly rough and highly
22 sloped area. Those that were excluded on that
23 particular map are simply the hilltops and I don't have
24 an estimate of what total fraction of the 65 hectares
25 that would be. It is my understanding that the

1 licensee was empowered to cut the rest.

2 MS. BLASTORAH: Perhaps before we move on
3 to the second point - I want to certainly allow Mr.
4 Kent to finish his comments on this point - but I have
5 a couple of questions maybe before we move on to the
6 second point. So if you've finished on that point, Mr.
7 Kent, perhaps I could just ask you a couple of
8 questions.

9 MR. MARTEL: Before we move on, I want to
10 get some position what MNR is saying. I mean, Mr. Kent
11 is telling us that he doesn't know the amount that the
12 hilltops represent of the total portion of this. Is
13 MNR saying that what is going to be cut is going to be
14 the hilltops, or are they going to go down?

15 MS. BLASTORAH: Unfortunately, Mr.
16 Martel, it's a little hard to tell from the photocopy
17 because it's a black and white photocopy. It looks to
18 me like the original was probably highlighted in colour
19 or perhaps was a little clearer.

20 Yes. I believe Mr. Kent's copy of the
21 map is highlighted in colour and it indicates that the
22 hilltops were not to be cut, and perhaps I could just
23 put to Mr. Kent - I don't know whether he's in a
24 position to confirm this - it's my understanding,
25 subject to correction, that the allocation for this

1 area, the approval for cut was for 15 hectares and, in
2 fact, to date eight hectares of that have been cut due
3 to terrain conditions on site, and that because of the
4 slopes and so on which have been encountered
5 substantially more than that will not be cut.

6 And I think if you review the
7 correspondence that Mr. Kent has filed you'll find that
8 it indicates that it was not the intention to cut the
9 slopes, as is indicated on the maps, the map Mr. Kent
10 has filed and, in fact, even the unmerchantable
11 condition of the timber, even on the slopes approaching
12 the hills, are such that it would not be harvested
13 either. I think that's all in the correspondence that
14 has been filed.

15 MR. KENT: The map that I have has been
16 highlighted, the hilltops are indicated in red. I'm
17 sorry that did not reproduce on the photocopy.
18 However, the 15 hectares that has been referred to is
19 only the 1991 authorized cut, there is an additional
20 larger area on my map in green which is 1992 to 1996
21 cut area and together I'm sure that those two areas
22 must be 60 to 75 per cent of the total of the Crown
23 lot.

24 MS. BLASTORAH: And, Mr. Kent, you were
25 offered the opportunity by the Ministry to go out in

1 the field and review what actually was going to be cut,
2 and I understand from your comments and from my
3 information that you, in fact, have chosen not go out
4 and do that, not to go out and get an idea in the field
5 of what actually is suitable for cutting and will be
6 cut as a result of the approval to cut in that area; is
7 that correct?

8 MR. KENT: It seems to me that the
9 information could have been put down in writing, should
10 have been put down in writing so that the residents
11 along the road would have an opportunity to consider
12 this properly and to then decide what their point of
13 view was with respect to the Ministry.

14 I can see very little to be gained by
15 walking over the cut with a Ministry official who would
16 explain to me the rightness of their decision.

17 MS. BLASTORAH: Have you taken the
18 opportunity to go into the district office at your
19 convenience and review the plan, the written plan for
20 the area and the approvals and so on?

21 MR. KENT: My wife has done that.

22 MS. BLASTORAH: So you are aware of
23 what's actually in the timber management plan and the
24 details of the cutting and regeneration proposals for
25 that area?

1 MR. KENT: More or less.

2 MS. BLASTORAH: And you're aware that
3 the -- you indicated that an application had been made
4 some time ago by, I believe you said someone in the
5 area, to selection cut the area, and I think it's
6 indicated in the correspondence here that the approval
7 has been to clearcut this eight hectares which has been
8 cut so far in a clearcut manner because of regeneration
9 considerations.

10 The correspondence, on my reading,
11 indicates that the area is to be regenerated to poplar
12 and spruce, and I believe the letters indicate that
13 that is -- that clearcutting is the appropriate
14 mechanism for ensuring the return of those species to
15 the site; is that correct?

16 MR. KENT: I've been told by the Ministry
17 that in order to allow the appropriate amount of
18 sunlight in to regenerate some of these desirable
19 species it's necessary to clearcut. That seems to be
20 hardly sustainable because you can allow sunlight in
21 without clearcutting an entire Crown lot.

22 I think that there is substantial
23 experience and I'm sure that the Commission has heard
24 of this from others much more equipped to speak to it
25 than I, on what is an appropriate size of area to be

1 cut in order to permit regeneration... I'm no technical
2 expert, but I somehow doubt that it's necessary to cut
3 an entire lot.

4 MS. BLASTORAH: Mr. Kent, you also
5 commented on the map that had been provided to you and
6 you felt that it didn't accurately indicate the forest
7 composition on the area.

8 I believe in discussions with the unit
9 forester it was made clear to you that they were aware
10 that that was not the forest composition on the site
11 and that, in fact, the FRI typing of the area -- the
12 forest resource inventory typing shown on the map was
13 inaccurate and that these stands were in fact composed
14 of poplar and balsam fir; correct?

15 MR. KENT: I would agree with part of
16 that. I don't believe that they said that they knew
17 that the composition was poplar and balsam fir, that I
18 do not recall at all, but I would simply state that I
19 would like to know what the information in their mind
20 was at the time they granted the licence, and because
21 they sent me they particular map in support of their
22 decision to grant the licence, I can only assume that
23 they believed that it was 50 per cent jack pine, 40 per
24 cent poplar, 10 per cent balsam fir.

25 MS. BLASTORAH: And I take it from your

1 wife's review of the timber management plan, you are
2 not aware or don't recognize that the timber management
3 plan, in fact, indicates the area is to be regenerated
4 to poplar and spruce in accordance with what's there
5 now?

6 MR. KENT: This could be the intention.
7 Somehow I would doubt whether they would be successful
8 in regenerating spruce.

9 MS. BLASTORAH: Mrs. Koven, I don't think
10 I have any more questions at this point in time. Mr.
11 Kent has very fairly filed the Ministry's
12 correspondence along with his own and I think the bulk
13 of the Ministry's position is set out in the
14 correspondence. I just wanted to clarify those few
15 point. I won't take any more time.

16 MADAM CHAIR: Thank you, Ms. Blastorah.

17 Mr. Kent, how long have the houses been
18 on Chimo Road.

19 MR. KENT: Oh, there have been permanent
20 residences there for seven or eight years. Some of the
21 building has taken place in the last two years, but
22 there have been permanent residences there for seven or
23 eight.

24 MADAM CHAIR: And how close is the cut to
25 the houses?

1 MR. KENT: Well, this particular Crown
2 lot, as I said, bordered on four sides by privately
3 held lots and on three of these there are residences.
4 And, again, the wells on those three properties cannot
5 be more than one or 200 feet from the boundaries of the
6 Crown lot.

7 MS. BLASTORAH: I just have one follow-up
8 question.

9 MADAM CHAIR: Ms. Blastorah.

10 MS. BLASTORAH: I think it would be fair
11 to describe this area as relatively rural; is that
12 fair, Mr. Kent?

13 MR. KENT: Yes, I think so.

14 MS. BLASTORAH: And there is a fair bit
15 of Crown land in the area; correct?

16 MR. KENT: The last time I looked at the
17 MNR's map for this there was not a preponderance of
18 Crown land, no.

19 MS. BLASTORAH: I'm speaking in Gillies
20 Township?

21 MR. KENT: Well, I think we were talking
22 about Pearson Township.

23 MS. BLASTORAH: Okay. It was my
24 understanding that this was just on the border of
25 Gillies Township; is that correct?

1 MR. KENT: Yes. The top -- the northern
2 border of this particular Crown land is Gillies.

3 MS. BLASTORAH: And there has been
4 cutting in the past in that area on Crown land;
5 correct?

6 MR. KENT: I don't know.

7 MS. BLASTORAH: Okay, thank you. No more
8 questions, Mrs. Koven.

9 MADAM CHAIR: Thank you very much, Mr.
10 Kent.

11 The Board will now call on Mr. David Bak.

12 Good evening, Mr. Bak.

13 DAVID BAK, Sworn

14 MR. BAK: Good evening, Commission. My
15 name is David Bak. I am here to represent the
16 Northwestern Ontario Trucking and Logging Association.

17 MADAM CHAIR: Could you speak a little
18 louder. Everything we are saying this evening is taken
19 down by our court reporters.

20 MR. BAK: My name is David Bak. I am
21 here on behalf of the Northwestern Ontario Trucking and
22 Logging Association and we represent the independent
23 loggers and smaller logging firms in the Thunder Bay
24 area.

25 A lot of our members operate on the

1 smaller district cutting licences and the
2 order-in-council licences, and they operate in the
3 local Crown management units surrounding Thunder Bay
4 and Nipigon areas. We do not have any FMA agreements
5 on the areas.

6 I do not have a lengthy presentation by
7 the way, it is just a short -- several concerns as our
8 members have brought forward.

9 The first one is, stream crossings seems
10 to be a problem for many of our people. Putting a road
11 over even a small stream or drain, we seem to run into
12 a lot of problems with how it should be done and what
13 size culverts, this type of thing.

14 We used to kind of decide on our own in
15 the field. I guess you get a few bad apples it spoils
16 it for everybody. So now we have got MNR enforced
17 guidelines that want to go to twice and three times the
18 size culvert that it's really desired for a particular
19 crossing.

20 I talked to many people in the industry,
21 even on the larger FMA areas and they tell me that it
22 is almost automatic that you have to appeal the size of
23 the culvert that the MNR asks to put in. It is almost
24 automatic all the time that you appeal right away to a
25 smaller size.

1 I have seen some examples, or at least
2 one anyway, where a stream went under the pipeline, CPR
3 tracks and the highway, and I believe that they were
4 six foot and four foot, I understand a fellow wanted to
5 do some -- to put a bridge over a creek below all these
6 things near Lake Superior they wanted an eight foot
7 diameter culvert, and the higher you go the cost gets
8 pretty enormous with this kind of stuff.

9 Like our operations, we do not get any
10 FMA money to help out the roads or culverts or
11 anything, just the larger firms do on the bigger
12 timberlands. So we have got to pretty well fork that
13 out of our own pockets.

14 So if we get allocated a stand of timber
15 that's say 20 acres or a small amount that's over a
16 stream, to put that crossing in to get to that little
17 stand of timber could cost more than the total value,
18 most value would be in that timber.

19 We feel that's kind of unfair but we're
20 forced to go by these guidelines and we feel we should
21 get some help from somebody to offlay the cost. Either
22 that or the little stands of wood here and there that
23 would just be blowing down, they're not going to be
24 cut, it just can't be done.

25 We have got enough other costs,

1 Compensation Board, and everybody else is grabbing here
2 and there, and equipment costs go up and the markets
3 are not the best either.

4 We also think the MNR should distinguish
5 maybe a little better between genuine fish streams
6 that -- fresh water streams, and some of the drains.
7 We seem to find a lot of confusion between smaller
8 drain slews and just drain swamps and ponds and nobody
9 is sure whether it's a fish stream or if it is really
10 something that we should be concerned with or not
11 because probably the costs -- it would take a lot more
12 effort on the ground to check these things out all
13 right, but it would save the independent loggers a lot
14 of problems if we are trying to build roads or a stream
15 across it.

16 I guess another concern is the gravel
17 situation, the right of the licence holders to use the
18 gravel and sand that is in their licenced area for road
19 work.

20 Previously to a year ago, I believe, or a
21 year and a half ago, any material there we could
22 normally just dig as we were making the road and use it
23 to build the road. Now we have got to go through the
24 process to get board permits, it is time consuming. A
25 lot of times we can only move a certain amount of wood

1 in a short time, the mills will open just a short time
2 to take this wood, and if we have to wait for a board
3 permit, go through the bureaucracy every time, it is a
4 hassle.

5 We can't see why we shouldn't be able to
6 use gravel or sand, the material that is right in our
7 areas. If it is not near a stream or near a waterway,
8 why should we not be able to use this material to push
9 the road through.

10 We have even got problems to -- if
11 cutting a hill down is in removing gravel, do we need a
12 board permit or don't we need board permit? There is a
13 lot of things that should be interpreted to be
14 corrected and we don't figure that -- of course, now we
15 have to pay for it too, we don't figure we should have
16 to pay for that material we are using in our own bush
17 roads, we are not using it for profit.

18 The MNR uses these roads after the
19 reforestation. We do not get FMA money, as I said, of
20 any type. We have got to build these roads ourselves.
21 We figure at least we should be able to get at least
22 the free material that is there for the take without a
23 cumbersome process to get a board permit for every
24 short distance we move or have to pay for this
25 material.

1 One thing we thought, that if on this
2 gravel or sand that MNR -- why they could not mark on
3 the licences, mark the areas if they have a concern
4 where they do not want gravel removed or any pit dug
5 you could put it on the licence, on the permits as an
6 area of concern so we would know these things. Any
7 other areas that were not marked, we could take the
8 gravel as we need it. I mean there should be
9 guidelines on limits.

10 I am not saying dig a 200-foot base or
11 anything like that, but shallow pits up to a certain
12 depth of 10 or 15 feet whatever, slope them.

13 Another thing we have had lately is
14 the -- that the MNR is doing an excellent job of
15 fighting forest fires lately up here since we have had
16 a dry summer.

17 Last week they cancelled all the work
18 permits for cutting and hauling wood in the area and
19 this was a fire prevention measure. We have got a lot
20 of -- quite a few hundred into the thousands of
21 woodworkers and truckers that are out of work now.

22 But at the same time they have closed
23 down these logging operations, berry pickers and
24 recreationalists, fishermen, hunters can go out any
25 time. There is no clamp down on them whatsoever.

1 We do not figure the loggers should be
2 the scapegoat every time there is a fire situation,
3 that we should be kicked out of work and everybody else
4 can go out there, that does some -- is probably not as
5 fire conscious as we are, can go out and roam the bush
6 and start fires. I do not say they do it intentionally
7 but it does happen. We figure that is a little unfair.

8 We had a lot of that the last few years.
9 It seems that the recreationalists get the right all
10 the time to go out. Every time there is a bad fire
11 situation the woodworkers are laid off and everybody
12 else can still roam out there. We do not figure that
13 is fair.

14 We figure that if it is that bad the
15 logging operations, especially trucking, has to be shut
16 down, why not put a ban, a travel ban in some areas,
17 restrict travel for everybody. It will be safer for
18 the forest and safer for the people out there that
19 might get caught in the fires.

20 That is just about all I have. Just a
21 few short points.

22 MADAM CHAIR: Thank you very much, Mr.
23 Bak. We have heard from other members of your
24 association as well on some of the same points that you
25 have raised this evening and we thank you for coming

1 tonight.

2 Are there any questions for Mr. Bak?

3 (no response)

4 All right. Thank you very much, sir.

5 MR. BAK: Thank you very much.

6 MADAM CHAIR: The next people we will be
7 calling are Mr. Warren Mazurski and Mr. Bob Lavallee.
8 Are those gentlemen here?

9 We just checked with our court reporter
10 and she would like a break before we get started, if
11 that is all right with you?

12 Could you tell us, please, how long do
13 you think you will be with your presentation?

14 MR. MAZURSKI: If not many questions I'll
15 only go five minutes, six minutes. Pretty short.

16 MADAM CHAIR: Thank you very much. And
17 following Mr. Mazurski and Lavallee, we will be calling
18 on Mr. Brad Murphy.

19 Is Mr. Brad Murphy here this evening?
20 And is there anyone else here tonight who wishes to
21 speak to the Board?

22 (no response)

23 All right. We will be back then in 15
24 minutes.

25 ---On recessing at 8:00 p.m.

1 ---On resuming at 8:20 p.m.

2 MADAM CHAIR: Good evening.

3 Could you come forward, please, and we
4 will swear in your evidence.

5 Mr. Mazurski.

6 WARREN MAZURSKI, Sworn

7 MR. MAZURSKI: I would just like to say
8 that I didn't make any copies but the girl assures me
9 if I speak slow she can write down every word I say.

10 My union, which is Canadian Paperworkers
11 Union, asked me to write down a brief to present to
12 this Board on how I feel about logging in the bush and
13 maybe make some recommendations, so that's what I did.
14 So I'm just going to read what I wrote. And if there's
15 any questions afterward, I would be happy to answer
16 them.

17 My name is Warren Mazurski and I'm a
18 paper worker and a naturalist. Because I work in a
19 papermill, Canadian Pacific Forest Products here in
20 Thunder Bay, and because I'm a naturalist in my spare
21 time, I'm very concerned about how our public forest
22 lands are being logged. Both sides are important to
23 me; my work in the mill because it's my livelihood, and
24 my time spent exploring and learning about nature
25 because it's my main recreation and personal interest.

1 As mill employees we rely on the forest
2 for our jobs and so does the whole community we live
3 in. We have a very direct and permanent economic stake
4 in how the public forest is managed and utilized, and
5 as people who spend a lot of time in the forest with
6 our friends and families observing and enjoying its
7 natural beauty, whether hiking and camping, hunting or
8 fishing, we have a strong and longstanding connection
9 with this northern environment. It's a part of who we
10 are.

11 I deplore the way the forest is being
12 logged, I deplore it because the companies that are
13 extracting the fiber don't take into consideration the
14 whole ecosystem. What I mean by this is quite simply
15 stated in the phrase: You can't see the forest for the
16 trees. Think about this phrase and just what it means.

17 I feel it means that around every tree in
18 the forest is ground flora which is an integral part of
19 the forest ecosystem. There are layers of moss and
20 lichens, herbs and ferns, shrubs and understory trees.
21 All of them just as much a part of the forest as black
22 spruce and jack pine.

23 All these other layers are inadvertently
24 destroyed by the heavy logging equipment used today.
25 This ecosystem is the life of the forest for it (a)

1 releases oxygen into the air; (b) prevents erosion and
2 conserves moisture; (c) produces humus; and, (d)
3 interacts with all living organisms in the soil to
4 ensure life renewal.

5 I know the forest companies argue they
6 would plant trees on their clearcut areas, but that is
7 exactly the point, all they are doing is growing trees
8 and nothing else. Maybe a new phrase should be coined:
9 You can't see the forest because there are only trees.

10 With clearcutting, soil erosion can cause
11 siltation of water bodies and fish spawning beds and
12 where replanted trees are being outgrown by weeds or
13 other unwanted tree species, chemical herbicides are
14 being used to kill them. These herbicides affect all
15 the other parts of the forest ecosystem with
16 potentially devastating consequences.

17 I believe the company should use
18 alternative methods such as selective cutting and strip
19 cutting. These allow for natural regeneration of the
20 whole ecosystem. I believe that through a joint effort
21 by all parties concerned in the use of the forests for
22 whatever reason we can arrive at a sustainable solution
23 where there is a steady supply of wood to feed the
24 mills, where there is a properly managed forest to
25 sustain thriving communities, and where there is a

1 thriving environment in which all parts of the
2 ecosystem are healthy and treated with respect.

3 On behalf of the 1,600 members of Local
4 39 of the Canadian Paperworkers Union here in Thunder
5 Bay I would like the Board to consider the following
6 points.

7 1. Community-based structures for
8 managing the the public forest should be made up of a
9 mixture of people of different backgrounds, such as
10 ecologists, silviculturists and ordinary down-to-earth
11 people who are directly concerned about the forest for
12 a wide range of reasons.

13 2. Alternative harvesting methods such
14 as strip cutting and selective logging should be made
15 mandatory through government legislation.

16 3. More nutrients must be returned to
17 the soil and areas that have been clearcut. We should
18 even consider taking organic wastes from cities like
19 Thunder Bay, composting it on large scale and then
20 spreading or spraying it over logged areas to replace
21 lost humus. Ideas like this may sound a little
22 far-fetched, but then the situation we are facing in
23 the forest is getting to be pretty far-fetched too.

24 4. We need to do a lot more research
25 into appropriate technologies and develop improved

1 machinery for harvesting our forest on sustainable
2 basis. And,

3 5. We need to do a lot more observation
4 and analysis of the impacts of different logging
5 methods on the whole ecosystem. This is what many of
6 us thought the Ministry of Natural Resources was
7 supposed to be doing all along.

8 Thank you very much for the opportunity
9 to make our views and concerns known.

10 Thank you.

11 MADAM CHAIR: Thank you, Mr. Mazurski.

12 Are there any questions for Mr. Mazurski?
13 Mr. Cassidy?

14 MR. CASSIDY: No, Madam Chair.

15 MADAM CHAIR: Ms. Seaborn?

16 MS. SEABORN: No, thank you, Madam Chair.

17 MADAM CHAIR: Ms. Blastorah?

18 MS. BLASTORAH: Just one question, Mrs.
19 Koven.

20 Do you think it would assist with one of
21 your concerns that you stated, involvement of members
22 of the public as well as technical experts in timber
23 management planning, would it help if there were an
24 advisory committee to the member made up of
25 representatives of various interest groups from the

1 public?

2 MR. MAZURSKI: Yeah. All I'm looking for
3 there, basically what I was -- you've got to have a
4 your professionals, of course, you need those people.

5 I know a lot of people out there that I
6 talked to a lot that are just not professionals, I know
7 a lot of people out there who are not professionals in
8 the field and they're in the forest a lot and they see
9 what's going on and they have some good ideas and good
10 input and they really care, and an advisory board from
11 different groups with concerns might help that come
12 true...

13 MS. BLASTORAH: Thank you. Those are my
14 questions.

15 MADAM CHAIR: Mr. Mazurski, one quick
16 question. You've given the Board your opinion that if
17 clearcutting ceased to be a method of harvest, if
18 clearcutting simply wasn't done and all harvesting of
19 wood was done by methods such as strip cutting or
20 selective cutting methods, you feel confident in your
21 opinion that there would be no problem with wood
22 supply.

23 MR. MAZURSKI: Yes, I do. I feel that
24 natural regeneration would take place and properly
25 managed and properly harvested, I think we'll have wood

1 forever. That's my personal opinion.

2 MADAM CHAIR: All right, thank you,
3 Mr. Mazurski.

4 MR. MAZURSKI: You're welcome.

5 MADAM CHAIR: Mr. Lavallee?
6 Good evening.

7 BOB LAVALLEE, Sworn

8 MR. LAVALLEE: Madam Chair and Mr.
9 Martel, I hope you'll all bear with me. This is
10 certainly a new experience for me and I do tend, at the
11 best of times, to be a little bit of a rapid speaker.
12 So if I'm getting a little fast, I realize it is
13 getting late, just give me a sign.

14 MADAM CHAIR: I don't think you could
15 break the record of the presenter we had this morning,
16 Mr. Lavallee. It would be hard to do.

17 MR. LAVALLEE: The Canadian Paperworkers
18 Union, Local 528, welcomes this opportunity to address
19 the Environmental Assessment Board here in Thunder Bay.

20 Our local union represents about 400
21 workers at the Domtar Red Rock papermill about 75 miles
22 from here. Most of our members and their families are
23 users of the forests, be it fishing, camping, hunting,
24 trapping, boating, skiing, fuelwood harvesters, and I
25 guess we can't forget the all important tourists that

1 probably enjoys the same things as workers in the paper
2 industry.

3 And living in a single-industry town we
4 have a long-term interest in the future health and
5 sustainability of our forests, not only for us but also
6 for our children. We are also well aware of the need
7 to maintain the ecological balance of all forests, the
8 trees, the soil, the water, the nutrients, the
9 microorganisms, and the wildlife that are all necessary
10 to sustain these ecosystems.

11 Our members share many concerns with many
12 other users of the forest. The Board has already heard
13 of some of these concerns; the need for an independent
14 forestry audit agency, the need to overhaul the
15 forestry management agreements, and the need for a new
16 form of tenure, just to mention a few. We would like
17 to focus our attention on some of the local practices
18 we see every day.

19 About 10 or 12 years ago many areas of
20 the Limestone Lake area - and this is an area that is
21 about 15 miles north of Nipigon on Highway 11 - many
22 areas here were clearcut. Now, I'm not sure of the
23 size, it's pretty tough to get around in there, and I
24 never had access to a plane or anything, I wish I could
25 have given you more information, but I can't. Anyway

1 this area was formally typical mixed forest, mostly
2 birch, poplar, spruce, cedar, balsam. Today we can
3 only see spruce and poplar growing. We know that
4 clearcutting was the most economical way to harvest
5 that area but what about the expense and the artificial
6 regeneration and herbicides.

7 Now, on talking with local foresters
8 familiar with this area they said that the entire area
9 has already been chemically treated two or three times
10 to try to keep the poplar down so the spruce can grow
11 and they're going to need more in the future. They're
12 talking maybe every two or three years.

13 Who knows the long-term effects of these
14 herbicides in the wilderness or on the animals, in the
15 streams and in the lakes, in the soil and in rebuilding
16 the forest ecosystem, and what about the so-called
17 desired species that is encouraged to grow.

18 We now have a plantation instead of a
19 forest and a forest is not only trees. It has been
20 reported that some seedlings are hybrids, genetically
21 altered to better cope with the cold Canadian winters.
22 Now, we sure hope so because we're quite fearful of the
23 global warming crisis that seems to be coming.

24 Plantations are by far the most expensive
25 means of renewing the forest and no one is really sure

1 of the long-term effects. Would it not make more sense
2 to log more carefully, use strip cutting or
3 checkerboard cutting and allow the forest to renew
4 itself? Perhaps we should be guiding nature along and
5 working with nature, not forcing her.

6 Adjacent to these large plantations are
7 steep hills that have recently been clearcut as much as
8 possible in the last three or four years. At one point
9 in time I questioned whether this was a means of strip
10 cutting and I had doubts, so again I checked with some
11 of the local foresters, and when they originally
12 clearcutted the major areas they felt that this
13 hillside was very fragile and susceptible to quite a
14 bit of damage if it was cut at the same time, so their
15 recommendation was that it not be cut. But somehow
16 three or four years later it's all clearcut, the sides
17 of the hills and everything.

18 The terrain was quite rocky and very poor
19 soil. It seems that the demand for fiber has taken
20 precedence over the environment. Also responsible is
21 the vast -- or I'm sorry, also irresponsible is the
22 vast amount of waste and slash that are left to rot on
23 the wayside of cedar, poplar, birch already cut and
24 skidded to the roadway and it's not even good for
25 anything. In the harder to reach areas it seems like

1 some stands of birch were left.

2 I visited this area last year and it
3 wasn't quite a perfect clearcut, for some reasons some
4 birch was left standing. Going back in there again
5 this spring it seems like the wind and the harvesting
6 that damaged -- dented the trees in the process has
7 taken its toll. All we see now are downed clumps, the
8 roots are high in the air and the rocky soil is
9 exposed.

10 Just this past summer I noticed some
11 crews planting seedlings, I don't know who they were, I
12 saw a lot of rented trucks. I do intend to find out
13 more, I would like to keep an eye on this area in the
14 near future and it might change my opinion on a few
15 things, I don't know, but it seems like a great deal of
16 the area close to the roads was being worked on and
17 just checking again last week I noticed hundreds of
18 warning signs posting advising not -- advising anyone
19 not to enter these areas as they have just been treated
20 with herbicides.

21 Another area not nearly as sensitive but
22 vastly clearcut is the Cache Creek area about 12 miles
23 further north of Limestone Lake. There are massive
24 piles of slash on the roadsides and, again, hundreds
25 and hundreds of delimbed tree-length poplar hauled to

1 the side of the road and left to rot.

2 Again, there's a lot of birch that's
3 knocked down, either windblown, some of it cut,
4 bulldozed over, whatever, and it's just left laying
5 there to rot.

6 Our members have been bringing back many
7 stories of this kind of waste and abuse for some time
8 now. It seems that we have people that camp and fish
9 in remote parts of northwestern Ontario and there's
10 always stories like this to be brought back.

11 We all have to wonder what is really
12 happening out there in the forest. If the MNR's
13 expected to police this, are they short staffed or, you
14 know, can't this kind of waste be stopped or prevented
15 in some way?

16 For every horror story that we know about
17 we wonder how many are never seen and reported. It
18 seems that the bottom line on harvesting is the all
19 mighty dollar, get as much fiber to the mills as
20 cheaply as possible no matter what the consequences.

21 It seems that modern forest management is
22 sort of turning into a careless experiment based on
23 blind faith and new technology. Our forests that
24 belong to all Canadians deserve a far better fate than
25 this. The forest industry is economically the most

1 important industry in this country, but we must not
2 forget the vital part they play in regulating the
3 global climate.

4 Today, if possible, we must develop a new
5 strategy. We must have an economically ecologically
6 sustainable forest management plan as soon as possible.
7 We have to increase spending on forestry and ecology.

8 Other countries are far ahead of us in
9 these fields. We can and should be learning from them
10 now. No longer can we afford to waste and plunder our
11 forests, we cannot keep taking and taking and taking
12 and expect our forests to survive.

13 It is fairly obvious that if we talked to
14 trained foresters, as I noticed this afternoon - I had
15 to change my presentation a little bit, I would just
16 like to reflect it - we are going to get a lot of
17 varying and differing opinions on a lot of issues, just
18 talking to two professional foresters and listening to
19 them this afternoon.

20 I think on behalf of all our members all
21 we're asking of this Board to consider is that if there
22 are any possible errors in someone's logic, be it one
23 side or another, or someone's thinking, we would like
24 you to try and consider that it would be better to
25 error on the side of caution rather than error on the

1 side of ruin.

2 Thank you.

3 MADAM CHAIR: Thank you, Mr. Lavallee.

4 Are there any questions?

5 Mr. Cassidy?

6 MR. CASSIDY: Mr. Lavallee, you were
7 describing an area which, at the beginning of your
8 presentation, you said you thought had been treated
9 three or four times with herbicides, or was going to
10 require repeated treatments.

11 Can you describe that area for me again?
12 I am trying to figure out where that was.

13 MR. LAVALLEE: It's approximately, oh,
14 about 12 miles north of Nipigon on the east side of
15 Highway 11 back about two, maybe three three or four
16 miles off the main highway.

17 I believe it's in the Domtar limits. I'm
18 not sure who -- I have a pretty good idea who cut
19 there, but I would rather not say until I am really
20 sure.

21 MR. CASSIDY: Do you know if that area is
22 known locally as the Merrick plantation?

23 MR. LAVALLE: One of the foresters I
24 believe had quite a lot to do with that plantation was
25 the late -- or I'm sorry, the late great George

1 Merrick.

2 I bumped into the gentleman a couple of
3 weeks ago, the first time I had met him, and I had a
4 little chat with him, and I gave me -- it was a
5 coincidence, I was in there getting firewood and he
6 told me a little bit about the history of it.

7 MR. CASSIDY: Okay. Those are my
8 questions.

9 MR. MARTEL: That is a coincidental
10 question.

11 MR. CASSIDY: There's a lot of evidence
12 we shall be referring to at a later date.

13 MADAM CHAIR: Mr. Lavallee, Mr. Merrick
14 has appeared before the Board as a witness for Forests
15 for Tomorrow and Mr. Merrick, we heard some
16 considerable evidence from Mr. Merrick in relation to
17 these plantations, and essentially one of his
18 suggestions is that there is room in northern Ontario
19 for plantations for industrial forestry.

20 You seem to hold an opposing view, you
21 believe that nowhere should there be these sorts of
22 plantations.

23 MR. LAVALLEE: I just have to wonder if
24 it's maybe too late for that. Perhaps if the vast
25 clearcutting and reforestation might have started a

1 long time back perhaps it could be. I guess it's hard
2 to answer from the heart and from the head.

3 I think we all notice in our mills, some
4 mills are shutting down, but all mills seem to be going
5 bigger and faster and faster and demanding a lot more
6 fiber, and at some point in time we have to wonder if
7 they can do it with other methods.

8 MR. MARTEL: Does your mill use poplar?
9 I can't recall.

10 MR. LAVALLEE: If they do it's not hardly
11 any at all. Terrace Bay uses a tremendous amount, a
12 tremendous amount of poplar.

13 MR. MARTEL: How far is it from Terrace
14 Bay then to Nipigon?

15 MR. LAVALLEE: About 65miles.

16 MR. MARTEL: 65 miles.

17 MADAM CHAIR: Thank you, Mr. Lavallee.

18 Ms. Seaborn?

19 MS. SEABORN: No, thank you, Madam Chair.

20 MADAM CHAIR: Ms. Blastorah?

21 MS. BLASTORAH: Yes, I think about two or
22 three questions, Mrs. Koven.

23 Mr. Lavallee, you indicated some concern
24 about wood that had been left in the bush in the
25 Nipigon area.

1 Have you brought that concern to the
2 attention or has your union brought that concern to the
3 attention of the Nipigon district staff of the Ministry
4 of Natural Resources?

5 MR. LAVALLEE: All I can say is that we
6 have a small -- a committee working informally within
7 our local union, Fish and Game Club. Some of the
8 officers on the executive of our local union are on the
9 executive of that Fish and Game Club and I am sure that
10 they have mentioned that it was going to be done.

11 I know myself I have made many attempts
12 to try to bring it forward but I do not have the time
13 and I really can't speak for anyone else.

14 MS. BLASTORAH: So you yourself have not
15 brought that to the attention of --

16 MR. LAVALLEE: Not at this point in time.

17 MS. BLASTORAH: Has your union been
18 involved in the Timber Management planning process in
19 the Nipigon area?

20 MR. LAVALLEE: Our local union?

21 MS. BLASTORAH: Yes.

22 MR. LAVALLEE: Not to my knowledge.

23 MS. BLASTORAH: And has your union in
24 some broader sense been involved in the Timber
25 Management planning process there? You said your local

1 union, I just want to make sure.

2 MR. LAVALLEE: Not to my knowledge.

3 MS. BLASTORAH: I think those are my
4 questions. Thank you.

5 MADAM CHAIR: Thank you, Ms. Blastorah.

6 MR. MARTEL: I guess my concern is that
7 if there is a lot of poplar and you have got a mill and
8 a couple of mills here, I do not know the distance, I
9 guess it is about 70 miles from Nipigon to here?

10 MR. LAVALLEE: Yeah, approximately, 70,
11 75 miles.

12 MR. MARTEL: I am just not sure what the
13 distance is that one can haul and still make some money
14 out of the cost as opposed to leaving it there, and
15 that is why I ask if your mill at Red Lake or Red Rock
16 was using poplar?

17 MR. LAVALLEE: It is unfortunate because
18 there is a veneer plant in Nipigon itself and they use
19 a lot of poplar and they import probably a lot of oak
20 for plywood and stuff.

21 They are choking on their own waste.
22 They got a park pile there that is half the size of
23 probably downtown Thunder Bay and the chip log is
24 tremendous and they were wondering where they are going
25 to put this stuff, like, what are they going to do with

1 it, and it is too bad because right next door the wood
2 is rotting in the bush and it is already cut.

3 I am going to get to the bottom of this,
4 believe me, and I wish I could have had a lot more
5 information for you here tonight.

6 MR. MARTEL: Where do they get theirs
7 from, their own management unit or what?

8 MR. LAVALLEE: MacMillan-Bloedel Veneer
9 Plant.

10 MR. MARTEL: Yes.

11 MR. LAVALLEE: I would imagine they
12 probably seem to contract out quite a bit. Whether
13 they have a small crew of their own, year round steady
14 employee harvesting, I couldn't say for sure.

15 MR. MARTEL: Okay. Thank you very much.

16 MADAM CHAIR: Thank you, Mr. Lavallee.

17 MR. LAVALLEE: Thank you.

18 MADAM CHAIR: The last person we are
19 scheduled to hear this evening is Mr.
20 Brad Murphy.

21 BRAD MURPHY, Sworn

22 MADAM CHAIR: We will assign Mr. Murphy's
23 written presentation Exhibit No. 1905.

24 ---EXHIBIT NO. 1905: Written presentation by Mr. Brad
25 Murphy.

1 MR. MURPHY: Good evening. My name is
2 Brad Murphy. I am the district representative for CP
3 Rail assigned to the pulp and paper group in
4 Northwestern Ontario.

5 My purpose today is to speak to some of
6 the issues that are influenced by the Environmental
7 Assessment Hearing and its final outcome.

8 In part I want to share with the Board's
9 members some thoughts on the forestry sector in Ontario
10 as it relates to forestry dependent communities and to
11 the transportation sector. I also wish to add a
12 viewpoint on the balances the Board seeks to achieve
13 among the many interests involved in the hearing
14 process.

15 A brief sketch of CP Rail's role may be
16 helpful. CP Rail serves pulp and paper mills in
17 Kenora, Dryden, Thunder Bay, Red Rock, Terrace Bay,
18 Marathon, Sault Ste. Marie, Espanola, Iroquois Falls,
19 Temiscaming and Sturgeon Falls. We also serve
20 converting plants in Trenton, Hamilton and Toronto. In
21 1990 these plants produced more than 30,000 carloads of
22 traffic on CP Rail alone.

23 In addition we are involved in the
24 transportation of lumber, plywood, pulp wood, chips,
25 logs and poles. These shipments originate or terminate

1 in many of the same centres. Substantial lumber
2 shipments are also handled in White River, Chapleau,
3 Ignace, Dubreuilville, Ramsey and Manitouwadge. These
4 shipments accounted for a further 20,000 CP Rail
5 carloads in Ontario.

6 In total the forest product sector
7 accounted for some 56,000 freight carloads moving from
8 points in Ontario. The equivalent of about two full
9 train loads moving out every day of the year.

10 Looking at the Canadian forest industry
11 as a whole, the movement, its products account for
12 about a third of CP Rail's workload in the processed
13 and manufactured product sector of our business.

14 Against our total workload forest
15 products are about a 10th of the total. Still a
16 substantial share given that 50 per cent of the
17 railway's entire workload is taken up by huge tonnages
18 of just two raw bulk commodities, coal and grain.

19 It should be apparent from the scale of
20 our involvement in forest products transportation that
21 CP Rail has a substantial and legitimate interest in
22 these hearings and their outcome.

23 Revenues are only the most obvious and
24 immediate result of the linkage between our prospects
25 and those of our customers. More important is where

1 these revenues go - to operating expenses, purchases,
2 capital investment in renewing the basic truck
3 infrastructure to the benefit of all users and of
4 course payroll.

5 Our Northern Ontario operations are
6 centered on the Lakehead Division and on the Algoma
7 Division which together extend from Winnipeg, Manitoba,
8 to the Quebec border. They employ some 2,000 people
9 and the total payroll in 1990 was 90 million dollars.

10 Total expenditures including payroll,
11 operating expenses, capital spending on these two
12 divisions in 1990 were more than 200 million dollars.

13 One does not have to be an economist to
14 appreciate the multiplier effect of the dollar spent
15 and the economic benefits which accrue to ontario and
16 its citizens as a result of the railway's
17 transportation activity in Northern Ontario.

18 That said, we would be looking through
19 the wrong end of the telescope if we focused on any
20 industry's value solely from the standpoint of how many
21 people it employs or what it spends.

22 In the railway, those benefits to the
23 community are simply the logical consequence, not the
24 objective, of being a competitive producer of
25 transportation. And even more important of there being

1 viable competitive industries to serve.

2 Moreover, the economic spinoffs I have
3 referred to from the railway's presence are modest when
4 compared to the contribution of the forest industry
5 itself. A point that I am sure has been addressed in
6 detail by industry and other representatives. Many of
7 the communities I have referred to are one industry
8 towns. Strikes, layoffs, closures and depressed
9 markets often have a very direct effect on the
10 residents.

11 While difficult to quantify, clearly a
12 substantial number of CP Rail employees in Northern
13 Ontario do owe their livelihood to the forestry sector
14 and they are often directly affected by a downturn in
15 the forest industry as they are by shifts in any key
16 segment of our traffic.

17 The Ontario forest industry is one of
18 those key segments. A major component of the critical
19 mass of traffic is that basic to sustaining a
20 substantial main-line railway operation.

21 In effect, CP Rail's operations in
22 Northern Ontario are akin to a stool supported by three
23 legs. The forest industry forms one of the legs along
24 with the mining industry forming another. The third
25 leg is the transcontinental traffic moving between

1 Eastern and Western Canada.

2 Substantial weakening of one leg, or
3 worse still the loss of it -- radically affects the
4 ability to support what remains. Unlike highways, the
5 basic railway infrastructure is sustained entirely by
6 the total of commercial revenues the railway earns from
7 moving its customers' goods.

8 In fact in a very real way all the
9 industries in Ontario that use the railway are
10 interdependent. The loss of one and the revenue that
11 goes with it means less funds are available to keep the
12 roadway in shape. Therefore less adequate roadway for
13 the industries that remain.

14 Raising prices for remaining customers to
15 make up for loss in revenue is seldom an option. It
16 will either drive those customers away from the railway
17 or leave them uncompetitive in their product
18 marketplace.

19 Either way the railway faces losing more
20 business setting in motion a further downward spiral of
21 revenue. With that goes the parallel decline in the
22 ability to sustain infrastructure and provide adequate
23 levels of service.

24 The ability to withstand higher costs and
25 the lack of maneuvering room to recover these costs

1 from prices go to the heart of the Canadian
2 competitiveness issue. The dilemma is all too familiar
3 to both Canada's forest products industry and its
4 railways.

5 The pulp and paper industry is currently
6 at a low ebb faced with soft markets arising from a
7 series of conditions that have converged at once. The
8 lumber industry has been hard hit by the effects on its
9 markets of the 15 per cent surcharge on Canadian
10 exports into the United States combined with sluggish
11 economic conditions.

12 The railway has no automatic community
13 from these conditions in the customer's marketplace.
14 Quite apart from reduced revenues resulting from lower
15 volumes, we are frequently unable to recover increases
16 in our own cost from the revenues that remain. Often
17 the competition in the customer's market is too tight
18 for the delivery product price to sustain any normal
19 freight increase tied to increases in the cost of
20 transportation inputs.

21 Some of these conditions are cyclical,
22 some are structural. Certainly for the railway the
23 changing shape of Canada's trading patterns is as much
24 a reality for us as for the industry such as the forest
25 products one that we serve.

1 So too are the higher costs we face, not
2 all of them under our control. U.S. railroad, for
3 example, have greater traffic density and economies of
4 scale. A cost advantage is enhanced by lower taxes
5 paid by U.S. railroads and their more favorable climate
6 for a railway investment.

7 So our competitive arena is unbalanced to
8 the extent there may be policy imbalances that
9 disadvantage our major industries too, then Canada's
10 competitiveness is compromised from two directions.

11 Yet there is no doubt that the
12 competition is stiffening which places a renewed
13 emphasis on both low cost production and on low cost
14 transportation to get product to market.

15 For governments, regulatory bodies,
16 policy makers and legislatures, the challenge is to
17 find the right balance between the interests of the
18 natural environment and the socio-economic environment.
19 And socio-economic considerations must take into
20 account the realities of the market where success makes
21 our livelihood possible. Somehow we have to achieve a
22 viable balance among all these considerations.

23 These hearings are aimed at achieving
24 just such a balance - a predictable and sustainable
25 supply of wood for the forest industry, while at the

1 same time attempting to meet the needs and aspirations
2 of a variety of other users and interests including the
3 broader interests of the natural environment.

4 By the time these hearings have concluded
5 there will have been a wide range of proposals heard as
6 to how this balance will be achieved.

7 The forest industry has stated its
8 support for the legitimate interests of non-industry
9 forest users and the concepts of integrated resource
10 management and sustainable development.

11 Certainly we at CP Rail would urge the
12 Board to give particular attention to the full range of
13 socio-economic considerations in its deliberations.

14 In summary, we advocate a forestry
15 environmental policy which balances the interests of
16 the natural environment with the needs of all Ontario's
17 forest users including the continued economic
18 well-being of the forest industry, the communities it
19 supports and their related industries that serve them.

20 Thank you.

21 MADAM CHAIR: Thank you, Mr. Murphy.

22 Are there any questions for Mr. Murphy?

23 MR. MARTEL: As I travel on this task
24 force, as I come from a railroad community, I have
25 difficulty understanding why it is that railroads

1 cannot really win back the long haul part of their
2 industry which they have lost to the trucking industry,
3 whether we are hauling from Dryden all the way down to
4 let us say Toronto, which necessitates you can put a
5 whole car, a truck, and my mathematics is not not very
6 good, but when I was railroading it was five of us on a
7 crew. Now there is two or three maybe.

8 MR. MURPHY: Three.

9 MR. MARTEL: And I can't understand why
10 the railroads cannot really come out on top in that
11 war.

12 MR. MURPHY: Well, without getting
13 into --

14 MR. MARTEL: I understand all your costs
15 because I understand you made all the repairs and the
16 trucking industry does not. But short haul I could see
17 some difficulty. But long haul I have difficulty and
18 maybe you can help me.

19 MR. MURPHY: Well I will try, Mr. Martel,
20 without getting into a separate branch. We can have a
21 hearing on this itself.

22 One of our concerns, as mentioned in my
23 brief, is that we do not feel - I certainly do not
24 meann to be truck bashing here by any stretch of the
25 imagination - but we feel that there is an imbalance

1 created in the fact that we have to build and maintain
2 our own roadbed. We have to pay fuel tax to move
3 traffic over our own roadbed. We feel that - and it is
4 public knowledge - that we feel that the trucking
5 industry does not bear its full share on the cost of
6 Ontario's highways or Canada's highways or anyones
7 highways for that matter. In a farfetched world we can
8 ask the Government of Ontario to build the railways and
9 we will just run over them and pay fuel tax. That is
10 not going to happen.

11 I think the technological advances made
12 in trucking have been very great. They have improved
13 very much so. But on a cost per ton mile you are
14 talking about both financially and environmentally and
15 the railway can do it better. They can do it cheaper
16 and they can do it with less fuel. But as it stands
17 right now we feel that the tables are turned against
18 us.

19 MR. MARTEL: Because of?

20 MR. MURPHY: And then that it is even
21 compounded to a greater extent when you start moving
22 into the states because of the entirely different tax
23 structure that is involved in moving cargo through the
24 U.S.

25 MADAM CHAIR: Thank you very much, Mr.

1 Murphy.

2 MR. MURPHY: Thank you for the question
3 that I was able to answer.

4 MR. MARTEL: Thank you.

5 MADAM CHAIR: Before we adjourn this
6 session of the hearing we neglected to give exhibit
7 numbers to two written submissions today.

8 The first was Mr. Malcolm Squires, a
9 10-page written submission, and we will give that
10 Exhibit No. 1906.

11 ---EXHIBIT NO. 1906: 10-page written submission by Mr.
12 Malcolm Squires.

13 MADAM CHAIR: And the second submission
14 this afternoon was by Mr. Herman Van Duyn and Mr. Van
15 Duyn's written submission will become 1907.

16 MS. BLASTORAH: Madam Chair, could I just
17 ask, was Mr. Kent's submission just the correspondence
18 between him and the Ministry or was there also a copy
19 of his oral presentation?

20 MADAM CHAIR: Yes, there was a copy of
21 his oral presentation.

22 MS. BLASTORAH: Thank you.

23 MADAM CHAIR: Mr. Van Duyn's written
24 presentation is seven pages and there is material in
25 addition to the statement he made to the Board,

1 actually make that nine pages for Mr. Van Duyn's
2 presentation.

3 ---EXHIBIT NO. 1907: Nine-page written submission by
4 Mr. Herman Van Duyn.

5 MADAM CHAIR: We will adjourn for this
6 evening and the Board will sit beginning nine o'clock
7 tomorrow morning.

8 We do not have any scheduled speakers
9 tomorrow other than Mr. Thomas Baxter who will begin at
10 nine o'clock, unless there are other people who attend
11 the session and wish to speak to the Board, in which
12 case we will probably ask Mr. Baxter -- no, I'm sorry,
13 the public sessions are at two and seven tomorrow
14 night.

15 So Mr. Baxter's evidence hopefully will
16 be finished tomorrow morning, and certainly by the
17 afternoon session, and we can accommodate any members
18 of the public at the two sessions tomorrow.

19 Thank you very much.

20 ---Whereupon the hearing was adjourned at 9:00 p.m., to
21 be reconvened on Wednesday, August 21st, 1991,
22 commencing at 9:00 a.m.

23

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